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THE STANDARD RAILROAD WEEKLY FOR A

NOVEMBER 3, 1952

FREIGHT TRAFFIC ISSUE

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In this modern Santa Fe Railway PASSENGER STATION...

BYERS WROUGHT IRON PIPE safeguards the Radiant Heating System

The new Santa Fe passenger station at Arkansas City, Kansas, marks another step forward in the Railway's continuing program of improvements. The new station presents a striking contrast to the old structure, not only in architectural treatment, but in the heating system as well.

In the new station, the large window areas and the constant opening of the outer doors presented a difficult heating problem. The designers solved it with radiant heating. And to safeguard the heating system against excessive maintenance and premature replacement, they specified genuine wrought iron pipe.

Coils of Byers Wrought Iron pipe, embedded in the concrete floor, and carrying hot water, provide uniform temperature throughout the station, keep it welcome warm for the passengers. Byers Wrought Iron pipe was also used in the station's water lines. Pipe fabrication for the project was handled by the Eby Construction Company, Topeka, Kansas.

Byers Wrought Iron pipe has long been the first choice of experienced engineers for radiant heating systems because of its unusual combination of advantages. It is readily formed and welded which speeds and simplifies installation. It has a high rate of heat emission. It expands and contracts at practically identical rates with concrete. It has ample mechanical strength to withstand damage during installation. And its corrosion resistance has been demonstrated time and time again, over periods of many years.

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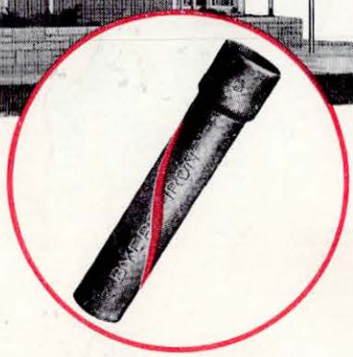

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This notch-fracture test specimen illustrates the unique fibrous structure of genuine wrought iron—which is responsible for the high corrosion resistance of the material. Tiny threads of glass-like silicate slag, distributed through the body of high-purity iron, halt and disperse corrosive attack, and discourage pitting and penetration. They also anchor the initial protective scale, which shields the underlying metal.

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WROUGHT IRON

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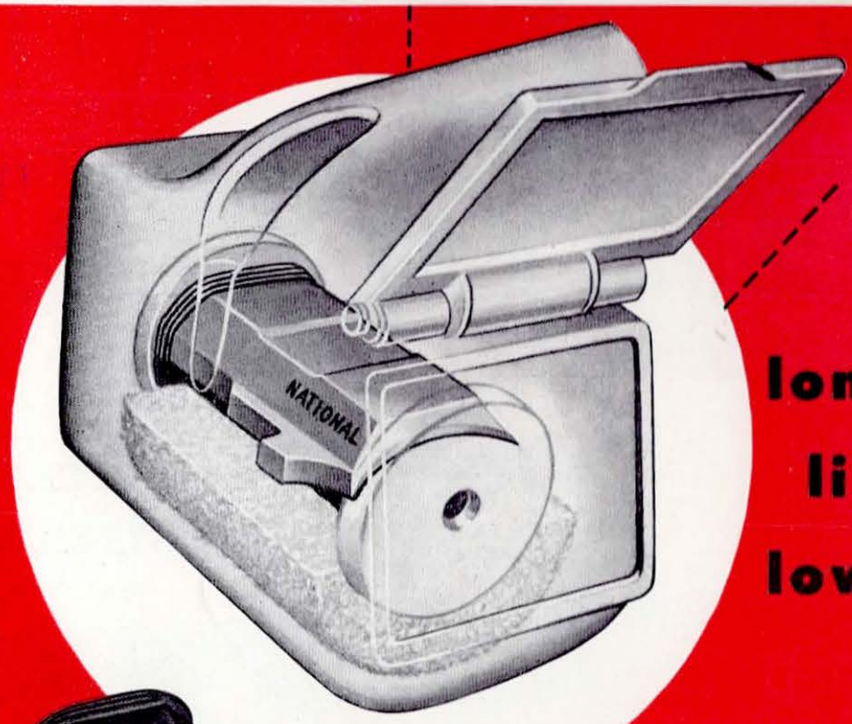
ELECTRIC FURNACE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS



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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, eight months
1952 ..... $6,810,999,610
1951 6,764,406,068

Operating expenses, eight months
1952 ..... $5,298,347,702
1951 5,345,357,749

Taxes, eight months
1952 ..... $ 782,437,887
1951 754,296,780

Net railway operating income, eight months
1952 ..... $ 611,327,838
1951 527,579,745

Net income, estimated, eight months
1952 ..... $ 405,000,000
1951 339,000,000

Average price railroad stocks
October 28, 1952 ..... 61.81
October 30, 1951 ..... 53.12

Car loadings, revenue freight
42 weeks, 1952 30,550,225
42 weeks, 1951 32,957,787

Average daily freight car surplus
October 25, 1952 28,517
October 27, 1951 2,360

Average daily freight car shortage
October 25, 1952 11,429
October 27, 1951 17,130

Freight cars delivered
September 1952 3,762
September 1951 8,533

Freight cars on order
October 1, 1952 95,377
October 1, 1951 140,135

Freight cars held for repairs
October 1, 1952 104,283
October 1, 1951 97,176

Average number of railroad employees
Mid-September 1952 1,233,638
Mid-September 1951 1,286,658

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In This Issue . . .

BETTER SERVICE, higher charges, fewer unprofitable operations, and lower operating costs, were the highlights of a four-point program designed to eliminate or substantially reduce the railroads' troublesome passenger deficit, which was outlined to the New York Railroad Club on October 16 by J. P. Newell, vice-president—operation of the Pennsylvania. Mr. Newell's discussion of these four points and his accompanying proof that the railroads are actually doing what *they* can to carry them out, is reprinted in full, beginning on page 88.

DESPITE SOME understandable differences of opinion, shippers and railroads have many mutual interests and many common problems. One of these, sometimes overlooked, is the necessity of preserving suitable locations for future industrial use. Some phases of this problem are the subject of editorial comment on page 72.

HOW WOULD YOU LIKE IT if labor groups could serve wage demands on you—and get them, if you could not render a satisfactory decision within 30 days? That's the rhetorical question posed by a shipper who feels strongly that the Interstate Commerce Commission should not be forced to make "30-day" decisions on general rate cases—even if the delay hurts the transportation industry. Varied views of the "time lag" problem were aired at the Associated Traffic Clubs of America annual meeting on October 20-23. More details appear on page 91.

NEW RAILROAD YARDS seem to be opening up everywhere. Last week's issue described the Reading's installation at Rutherford, Pa.; next week's will cover the Southern's new Ernest Norris yard at Birmingham; and in this issue two other new yards are the subject of three feature articles—the Allentown yard of the Central of New Jersey, on page 73, and Kirk yard of the Elgin, Joliet & Eastern, on pages 78 and 82.

In Washington . . .

"TARIFF SIMPLIFICATION AND IMPROVEMENTS . . . are beginning to appear in print," it was said on this page last week. One of this issue's leading news stories summarizes some of the "simplifications and improvements" recently approved, as set out in eight new Freight Tariff Improvement Bulletins issued by the Railroads' Tariff Research Group.

In this issue, contents appears on page 9.

WEEK AT A GLANCE

THERE'S AN OLD SAYING to the effect that if you want something done well, get a busy man to do it. On that basis—and many others—the National Defense Transportation Association has undoubtedly chosen well in picking as its new president an exceedingly busy man—Arthur H. Gass, chairman of the Car Service Division of the Association of American Railroads. Highlights of the N.D.T.A. convention, at which Mr. Gass was elected, are covered in the news pages.

MORE SUBSIDIES may be in the offing for commercial airlines, judging from a study of the entire federal-aid-to-airports program recently ordered by the Secretary of Commerce. The secretary apparently thinks that the air lines' increasing use of "bigger, heavier aircraft" justifies bigger, heavier spending by the federal government.

. . . And Elsewhere

"HERE IN NEW YORK CITY are two large passenger stations—Pennsylvania Station and Grand Central. A short distance to the east of us are the LaGuardia and New York International airports. Let's compare these two different types of passenger facilities. Penn Station and Grand Central cost in excess of $200,000,000 and these funds were supplied by the owning railroads. In comparison, more than $150,000,000 of funds, supplied by a public body, the Port Authority, have been spent to build LaGuardia and International airports. Moreover, the two railroads paid over 5⅓ million dollars in taxes on their two stations in 1951, whereas the rental paid to the City of New York by the Port Authority for the use of the two airports, and in lieu of taxes, amounted to less than one million dollars. In other words, the airports are being subsidized to the extent of several million dollars a year."—*From an address by J. P. Newell, vice-president—operations of the Pennsylvania, before the New York Railroad Club.*

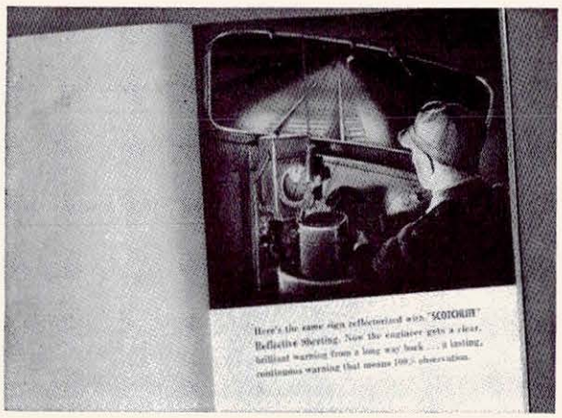
ONE OF THE NEXT STEPS in short-distance mass transportation of passengers—an endless belt which is, in effect, a "horizontal escalator"—seems likely to become a reality within the comparatively near future (Railway Age, *August 11, page 45, and April 9, 1951, page 64). Such a belt conveyor system is under serious consideration as a substitute for the Times Square-Grand Central subway shuttle trains operated by the New York City Board of Transportation, while a similar subway conveyor, approximately 3,300 ft. long, has been recommended for Cleveland. The Cleveland installation would run underneath Euclid avenue, between Public Square and Playhouse Square, with two intermediate "stops."*

THE RAILROAD WAS PAID FOR DAMAGES resulting from a passenger train-truck collision at a grade crossing in Byron, Wash., last January. The Northern Pacific, whose eight-car train was derailed and damaged, with injuries to several passengers and members of the crew when the driver of an asphalt truck tried (unsuccessfully) to beat the train to a crossing, received drafts totaling $54,000 from insurance companies in recognition of the truck driver's responsibility for the collision. The NP was lucky in that the trucker was insured, but the incident is indicative of increasing interest on the part of railroad legal staffs in establishing the responsibility for reasonable care by automobile and truck drivers crossing railroad tracks at grade.

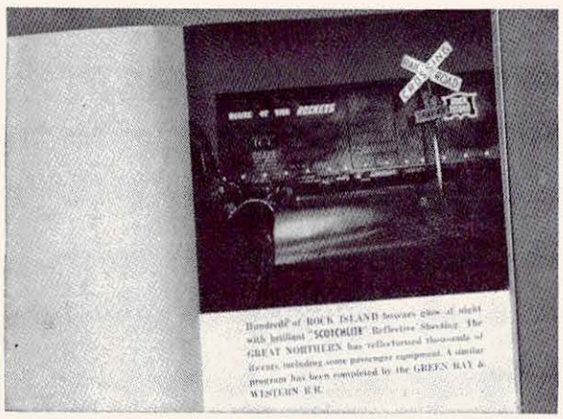
TRANSCONTINENTAL AIR SERVICE had its inception 25 years ago this fall, when National Air Transport began scheduled operation between New York and Chicago and Boeing Air Transport began service between Chicago and San Francisco. Passengers paid approximately $400 to make the coast-to-coast journey in 32 hours with 14 stops. Goggles and helmets were usually worn because the single-engined planes were designed primarily for handling mail and express. The same trip today takes 10 hours with one stop; costs passengers $158. The original N.A.T.-B.A.T. transcontinental route has become the core of the present 13,250-mi. United Air Lines System.

This Railroad Sign and Signal Book will help your Safety Program!

Write for your free copy of "REFLECT AND PROTECT" today!



HOW TO INCREASE VISIBILITY of Restricted Speed signs, Slow Boards, Whistle Posts.



HOW TO REFLECTORIZE rolling stock for greater safety, better public relations, around-the-clock free advertising.

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There is no obligation. Your copy of "REFLECT AND PROTECT" will be *mailed* to you unless you request that our representative call.

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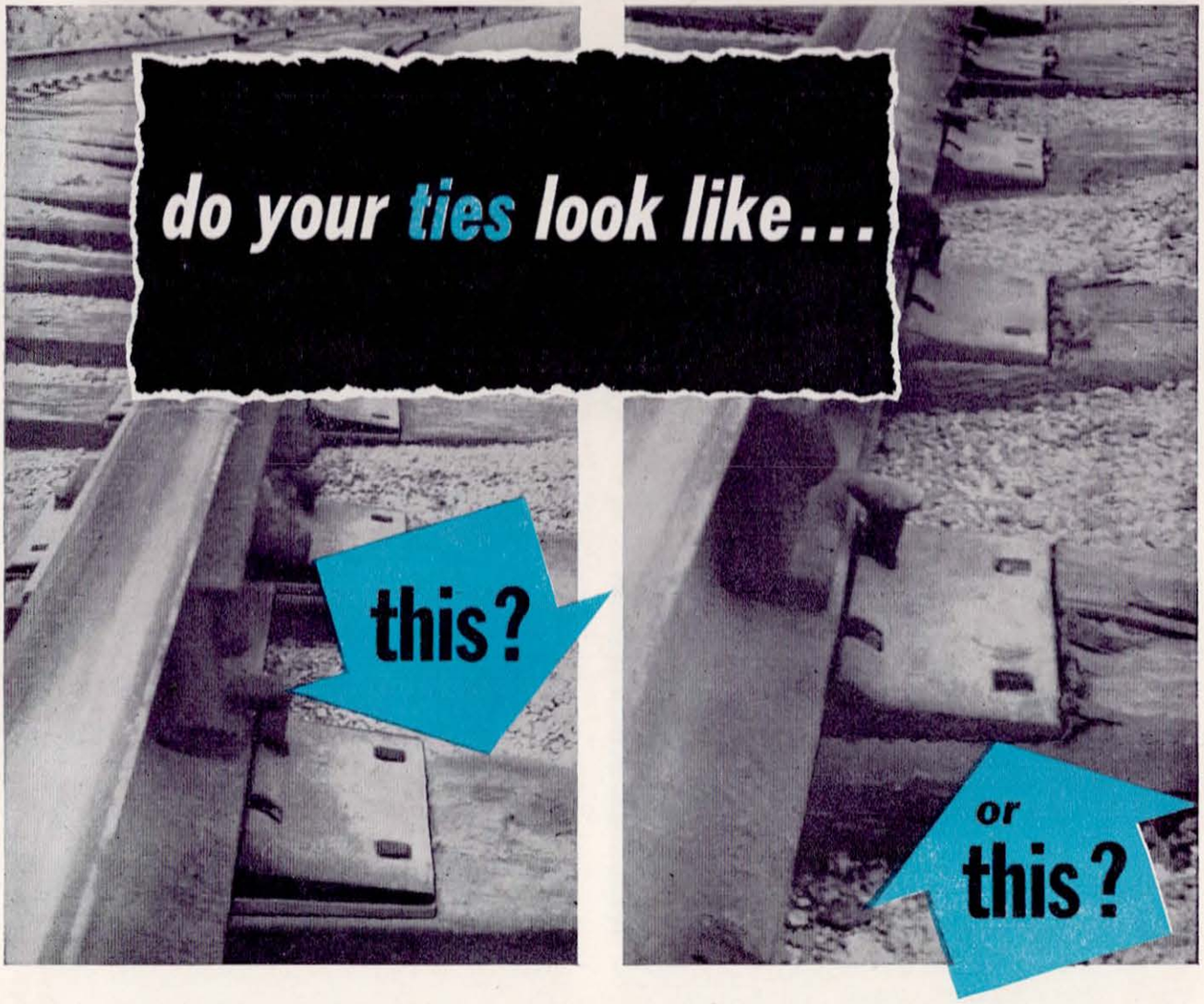
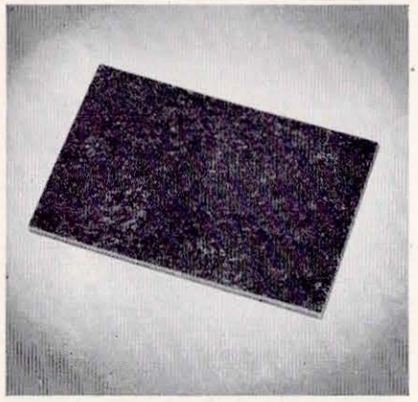


Look at the difference! One picture shows ties broken open by the plates—wood fibers exposed to rot, plates loose. The other shows tie and plate as sound as the day they were laid . . . thanks to tie pads made of strong abaca fibers bound by VINYLITE Brand Resins.

These tie pads protect ties by absorbing shocks. They grip the tie surfaces, hug the spikes—won't shift. Small plates are ample with these pads, because sand and cinders can't get underneath to cause abrasion. The wiry abaca fibers are scattered and tangled into a rugged mat, imbedded in an impregnation of VINYLITE Brand Resins that offers peak resistance to all the usual roadbed hazards.



Resisting all usual roadbed hazards, this tough pad of wiry fibers and VINYLITE Resins can reduce tie replacement 30%!

In desert areas, in extremes of heat and cold—tie pads which are made with VINYLITE Resins stand up against oxidation, sunlight, moisture . . . oil, acids, most solvents, alkali, insects and fungus. Several large railroads have found that they lengthen tie life—reduce tie installation cost, tamping, and regauging. They're perfect examples of the qualities that make VINYLITE Brand Resins important to scores of products in defense and industry.

Learn more about VINYLITE Brand Resins and Plastics. Write to Dept. NC-73 for the booklet "VINYLITE Resins and Plastics—Their Forms, Properties, Applications."

The tie pads sold by Railroad Tie Pad Division, F. Burkart Mfg. Co., 4900 No. 2nd Street, St. Louis 7, Mo.

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BRAND
RESINS

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BAKELITE COMPANY
A Division of
Union Carbide and Carbon Corporation
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30 East 42nd Street, New York 17, N. Y.

Vol. 133, No. 18 November 3, 1952

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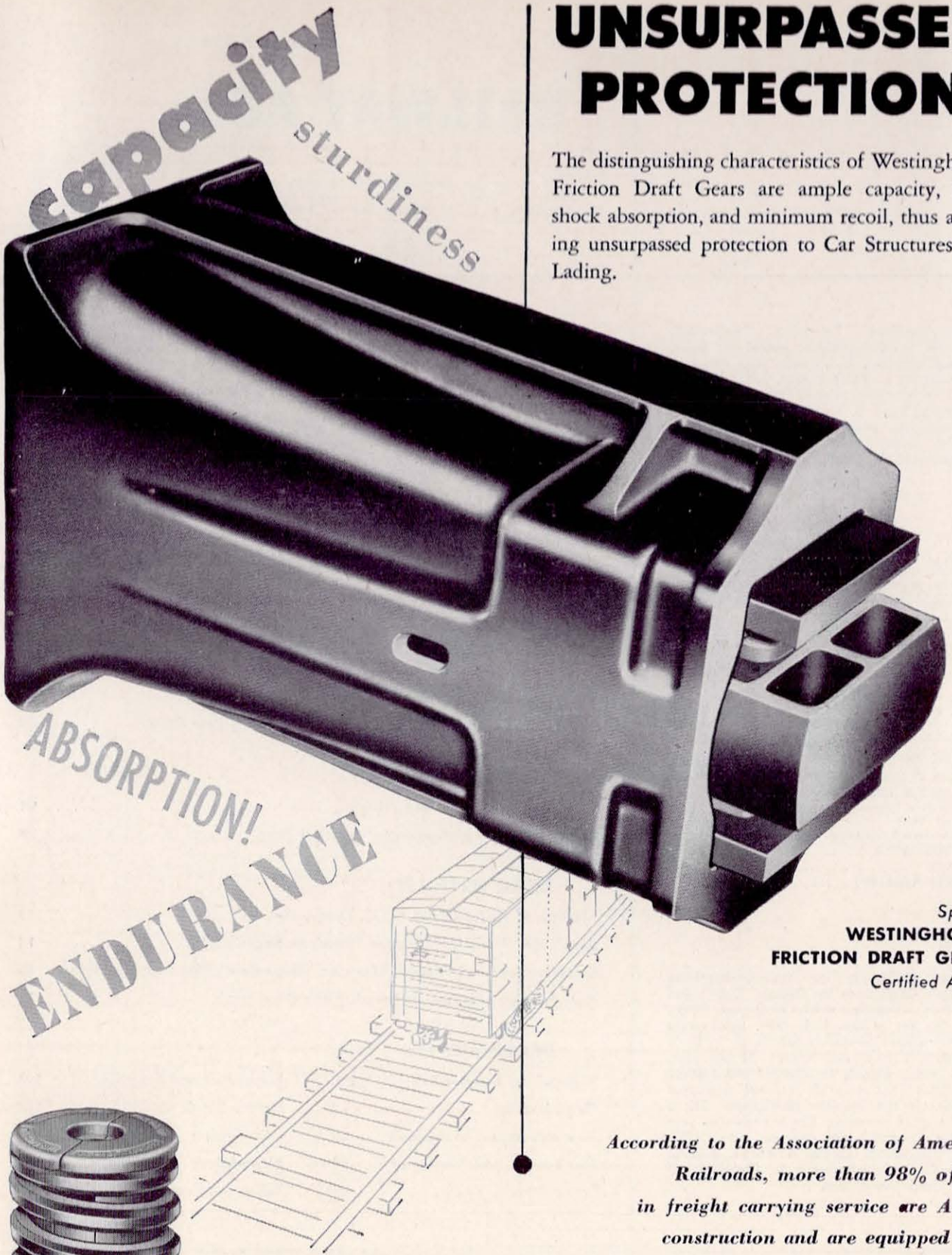

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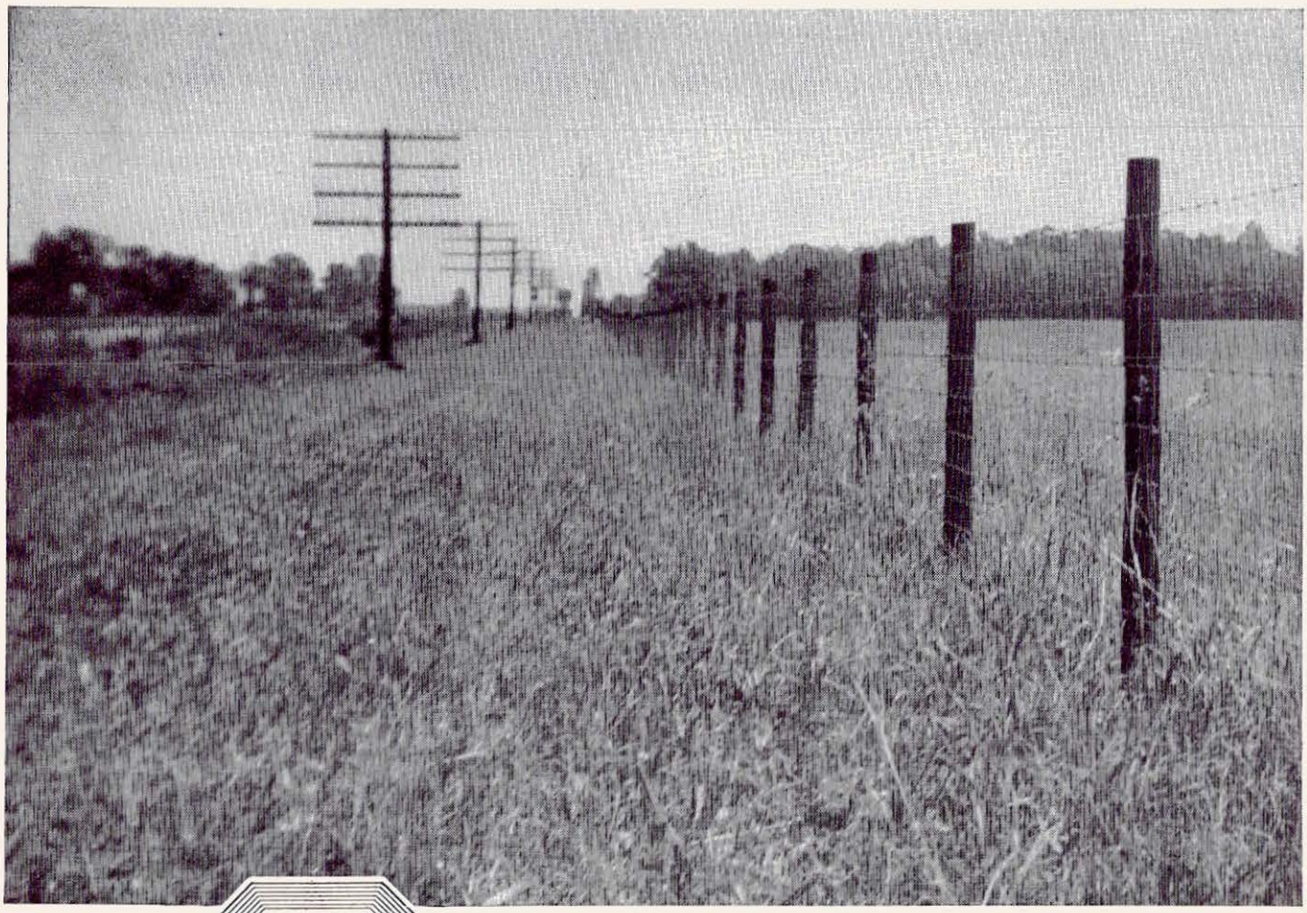
C&O cuts fencing costs

with Koppers Pressure-Creosoted Posts

To cut non-productive costs, in 1925 the Chesapeake & Ohio Railway began a test of posts for fencing. Carefully recorded installations were made of every kind of post that was considered usable. Treated and untreated wood of a number of species, as well as steel posts, were included. The results of the test were reported before the American Wood Preservers' Association in April this year.

By 1949, it had been clearly demonstrated that sizeable economies would result from the use of pressure-creosoted wood posts. Such posts set in 1925, not only were in service in 1949, but looked as though they would serve another twenty years. None of the other posts approached this performance. *On the basis of its own tests,* C & O then instituted a program of fencing with Koppers pressure-creosoted posts—more than 30,000 up to May, 1952.

If you want the facts on the economy of pressure-creosoted posts, they are contained in C & O's report to AWPA. We'll be glad to send you a copy of this report or supply additional information.



C & O right-of-way fencing near Richmond, Va.

KOPPERS PRESSURE-TREATED WOOD

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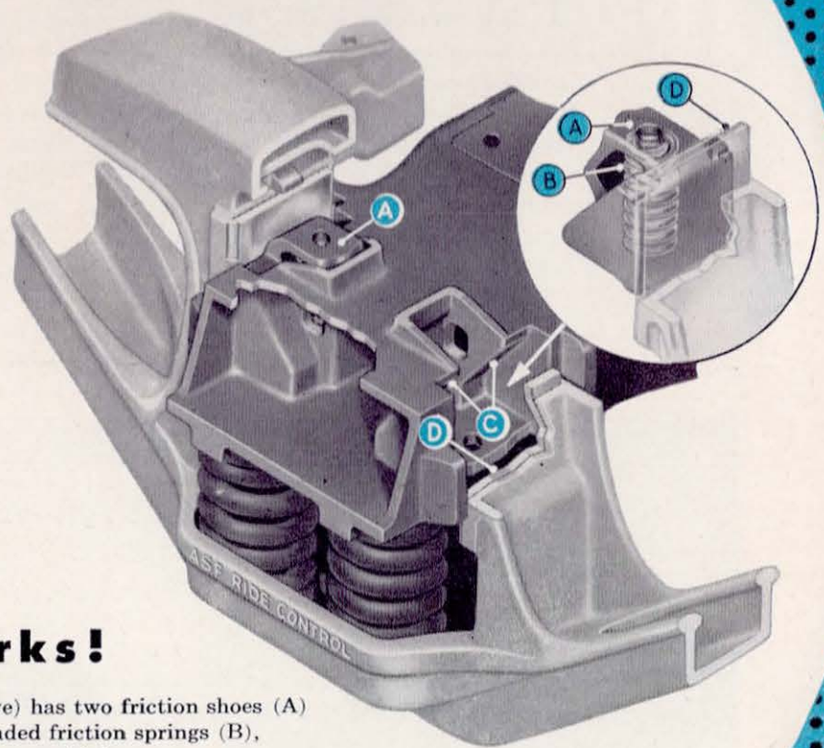
We believe that ASF Research has made very valuable contributions to the railroad industry. Proof? Well, for one thing, the record of the Ride-Control Truck! This is the truck—designed, developed, tested and *introduced* by ASF—that made possible today's freight train speeds.

It wasn't so easy to design a product which answered so completely the needs of modern railroading, yet operated on such a simple, basic principle that it definitely assured dependable, trouble-free service *and* the lowest possible maintenance costs.

Four little friction shoes and four constant-pressure friction springs did the trick! They made it possible, for the first time, to have the softness of long-travel springs, under *proper control!*

Today the ASF Ride-Control Truck is *the most-copied railroad truck in America!*



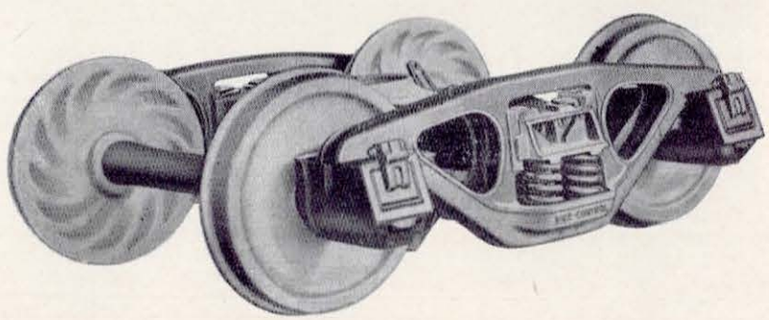
How it works!

Each Ride-Control bolster end (see above) has two friction shoes (A) into which are fitted two pre-loaded friction springs (B), both of which are compressed when assembled.

Spring forces the shoe upward, along the inclined surface (C), thus outward, *with constant pressure*, against the opposing hardened friction surface (D). That's it!

Ride-Control Trucks are *right* for every type of lading. Investigate them!

ASF



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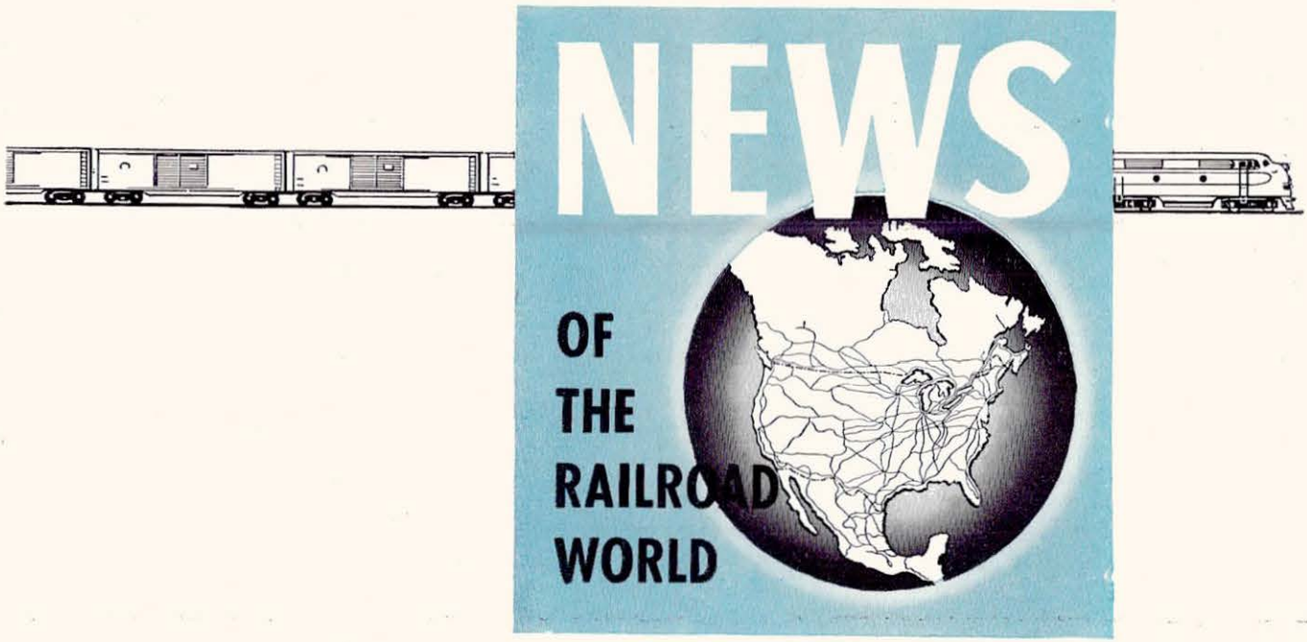


Meeting of Railroad and N. I. T. League Groups Results in New Tariff Improvement Plans

The Railroads' Tariff Research Group last week issued another in its series of "progress reports" on tariff simplification. Eight new Freight Tariff Improvement Bulletins have been sent out since the group's previous report in early October.

These latest bulletins, Nos. 13 through 20, were based on decisions reached at a joint meeting of the tariff simplification committees sponsored by the railroads and the National Industrial Traffic League. The meeting was held October 9 at Chicago.

Individual specifications to govern form and arrangement of freight tariffs are contained in the bulletins. As in the past, copies of all bulletins have been sent to tariff publishing agents and tariff issuing officers of individual railroads.

Bulletin No. 20, one of this latest group, directs all tariff makers to "proceed at once" to reduce the number of effective supplements now outstanding, to the limits outlined in Interstate Commerce Commission regulations.

"The excessive supplementation of tariffs—a product of the wartime period and the era of the postwar general rate increases—is one of the principal complaints of tariff users, and this single action will go a long way in promoting efficiency in tariff use," the Research Group reported.

Bulletin No. 13 prescribes the structural arrangement to be observed by tariff makers in setting up general and specific rules, or other provisions stated in narrative form. When such matter consists of an item number, a subject, and a text, the structural arrangement adopted for uniform use is the one commonly used in Western Trunk Line tariffs of Agent Kipp. It places the item number in a separate column at the extreme left of the page; the subject, separately in an adjacent column, and the text is published to the right of the "subject" column.

Bulletin No. 14 sets up a uniform method for the alphabetical listing of stations in indexes and tables of tariffs, mileage schedules, basis books, routing guides and other schedules. The listing of stations in indexes shall be alphabetical by states, with the states arranged alphabetically. Tables arranged with head line and side line points shall have stations listed alphabetically by states when the number of head line stations exceeds ten or when side line stations consume more than two pages.

Rate tables which arrange stations in geographical order are not affected by Bulletin No. 14, the Research Group said.

Bulletin No. 15 relates to the outward appearance of tariffs. It directs tariff makers to discontinue the practice of making up some tariffs with outer coverings of paper and cloth strips (paper front and back with cloth covering the "backbone"). Instead, they will use the more durable wrap-around covers of the type used for the Open and Prepay Station List and the Uniform and Consolidated Classifications.

In addition, to assist users in locating tariffs, Bulletin No. 15 directs that every tariff of 200 pages or more shall carry a printed identification on the "backbone." This identification will include the name of the issuing bureau or carrier, the tariff number and either the name of the tariff or a catch-word description of its application.

Bulletin No. 16 directs elimination from tariffs and supplements of the "box" or table of individual lines' tariff numbers. This was done because it was found that such information is surplus to the normal needs of a tariff user.

Correct Sequence

Bulletin No. 17 treats with the order of sequence of rate sections in tariffs containing two such sections. It directs that the section of "miscellaneous" rates be located uniformly ahead of the section of "general" rates.

Bulletin No. 18 sets standards for "cumulative indexes of current items." This bulletin directs that all tariff supplements of more than eight pages shall carry a complete cumulative index. The partial or interim index occasionally used in smaller supplements to bridge the gap between large supplements will be discontinued. Cumulative indexes carried in supplements enable tariff users to establish quickly the currency of any item in the original tariff or prior supplements, the Research Group said.

Bulletin No. 19 prohibits use in tariffs of nicknames or trade names for

railroads unaccompanied by the corporate name or the standard abbreviation. When stations are named in geographical order in station lists or rate tables, the stations on a particular railroad cannot be listed under its trade name unless a cross reference is provided at the position in the alphabetical sequence where it would appear if arranged according to its corporate name.

Another action taken at the joint committee meeting on October 9 contemplates elimination from tariffs of columns showing numbers of powers of attorney and concurrences from lists of participating carriers. The Research Group said authority must be obtained from regulatory agencies before this action can be made final and binding.

Next joint meeting of the railroad and N.I.T. League committees is scheduled to be held in Philadelphia on December 17. Fred Carpi, vice-president of the Pennsylvania, is chairman of the Railroad Administrative Committee, while the N.I.T. League Cooperating Committee is headed by J. W. Peters, traffic manager of the Delco-Remy Division, General Motors Corporation. Charles S. Baxter is chairman of the Railroads' Tariff Research Group.

Soviet Rail Facilities Threaten American Superiority, White Tells Defense Transport Group

A large-scale buildup of railroad facilities in the Soviet Union threatens American superiority in this strategic area of military preparation, William White, president of the New York Central, said in New York on October 28. Addressing the seventh annual convention of the National Defense Transportation Association, held from October 26 through October 29, Mr. White emphasized that we should not underestimate the ability of the Kremlin—as we did in the case of the atomic bomb—to arrive at all-out railroad strength in a few years.

"It is likely," the NYC chief executive said, "that the railroads of our allies, and consequently their whole logistical potential, are not being maintained at a safe margin of superiority over those of our potential enemies. In the event of any large-scale conflict in the foreseeable future, the United States again would have to serve as the arsenal of democracy and our railroads again would have to be the foundation on which the arsenal is built.

"This brings us to a question of critical importance: How do railroads of the United states measure up in the preparedness race? Thanks to a number of factors we can give a reassuring answer to that question. Our lead over the Communist world in transportation—and especially in war-vital railroad transportation—is probably greater than in any other field significant to national defense . . . That is the situation today. But what will it be tomorrow and through all the critical tomorrows of a cold war whose termination no one can foresee?"

The outlook is not as comforting as we would like, Mr. White continued, "principally because of a failure on the part of the American people and our Congress to recognize the stifling effect of governmental regulatory laws which were designed for horse and buggy days rather than to meet modern conditions and which fail to recognize the competitive situation existing among transportation industries of this country. In fact, while our railroads have effective security measures against possible enemy action, they are not protected against the deadening effects of outmoded regulation."

Arthur H. Gass, chairman of the Car Service Division of the Association of American Railroads, was elected president of the N.D.T.A. to succeed Col. Melvin L. Craig, First Army transportation officer with headquarters at Governors Island, N.Y. A photograph of Mr. Gass appears on page 6. John A. Appleton, vice-president of the Pennsylvania; H. J. Carroll, general traffic manager of the Goodyear Tire & Rubber Co.; and Leland James, president of Consolidated Freightways, Inc., were among those elected national vice-presidents. Giles Morrow, executive secretary and general counsel of the Freight Forwarders Institute, was re-elected a national vice-president. Among those elected or re-elected regional vice-presidents were: T. R. Bartels, president, Republic Carloading & Distributing Co.; James F. Haley, traffic and transportation department manager, Koppers Company; George F. Boulineau, traffic manager, Atlanta & West Point; Tom C. Connally, district passenger agent, Missouri-Kansas-Texas; Earl Padrick, chairman, Western Military Bureau; and T. Louis Chess, general passenger agent, Southern Pacific.

Earlier, the association's National Transportation Award had been presented to Igor I. Sikorsky for his "most significant contribution to defense transportation in 1951." The award was presented at an October 23 luncheon of the association's Washington, D.C., chapter.

THESE TWO NEW 50-TON BOX CARS recently built by the Pullman-Standard Car Manufacturing Company for the Western Pacific are painted a brilliant orange. The experimental PS-1 cars, equipped with PS-type cushion under-frames and lading strap anchors, are being service tested to determine how well they protect lading from road shocks. The small white feathers on car sides are "Scotch-Lite" reflectors.

Study of Airport Program May Mean More Subsidies

The Civil Aeronautics Administration has been ordered by the Secretary of Commerce to review the entire federal-aid-to-airports program. The review is expected to serve as the basis for seeking additional funds to speed airport development, including construction of some new airports.

"The air transport industry is a vital part of our expanding national econo-

my," Secretary Sawyer said. "It is obvious that the bigger, heavier aircraft which this industry is using, make greater the need for additional airports and airport facilities. . . .

"In light of these facts I have asked the C.A.A. to make a complete review of the critria for our airport program. We will probably ask for and use, additional federal aid airport funds to speed up construction of airports now underway, make improvements to existing facilities and construct some new airports."

The secretary made these comments upon his return from a two-week trip through the West. He said that during the trip he observed personally "the importance of adequate facilities to civil air transport and the need for development of these facilities."

The Federal Airport Act, passed by Congress in 1946, permits the federal government to match funds put up by local governments for airport development. The act authorized expenditure by the C.A.A. of $520,000,000 in federal funds. In the first seven years, the C.A.A. obligated $182,500,000, which Congress appropriated for this work.

Secretary Sawyer's statement on air transport included a comment that "the advent of jet aircraft in the air transport field should not go unnoticed."

"Should jet transports come into use in this country, we will be faced with a brand new set of problems, not only in runways and terminal facilities but in weather and communication problems connected with 500-mile-an-hour flight," he said.

Canadian Railroads Turned Down on "Immediate" Rate Increase Petition

The Canadian Board of Transport Commissioners has dismissed a railway application for a general increase of eight per cent in freight rates. At the same time, it granted in part an application for increasing some rates on grain in western Canada, scaling down sharply, however, the railways' proposed increases.

The two sets of increases would have grossed the railways about $43 million a year, but the board's decision cut that down to perhaps no more than $2 million.

Decision on the eight per cent case marked the first time the board has thrown out completely a railway application for a general rate increase since the start of the postwar series of rate cases six years ago. In handing down the unanimous judgment of the five-man board, Chief Commissioner J. D. Kearney said that conditions have not changed enough since the last rate increase in January to require another increase at this time; and that the board came to the conclusion that "the prevailing level of freight rates is neither unjust nor unreasonable."

The grain increases apply to movement of that product within western Canada on the way to Canadian markets. They do not touch traffic in export grain, which is covered by low statutory rates.

The railways had asked for increases ranging from two to 55 cents in individual rates. The board ruled the increases should range from one to 13 cents. The railway proposals, aimed at bringing western rates up to Ontario-Quebec levels on domestic grain movement, would have lifted the western scale an average 57 per cent, grossing them about $3 million a year in new revenue. There was no official estimate on the effect of the board-ordered rates.

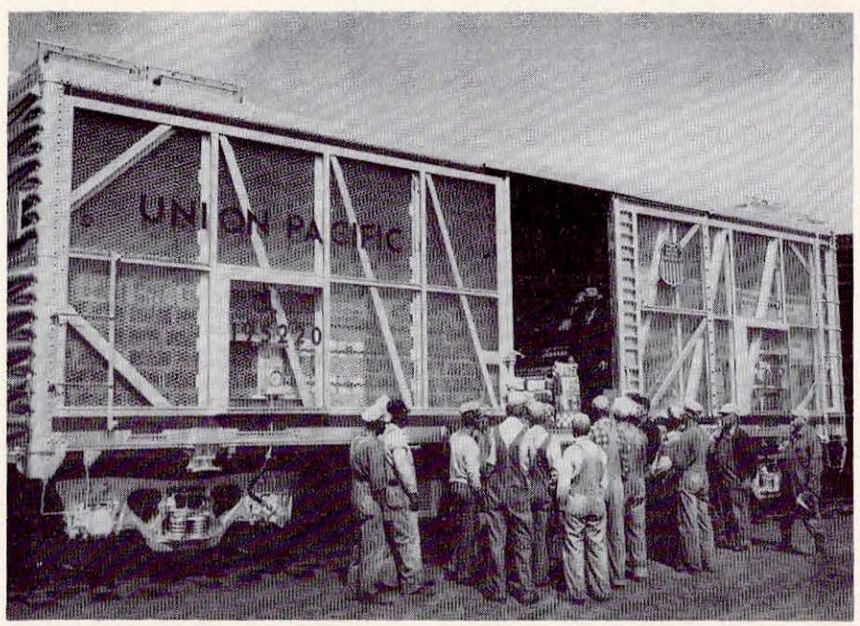
One feature of the grain decision was the board's refusal to eliminate now, as asked by the railways, a "hold-down" tieing many of the domestic grain rates to the low export rates.

The rejected application for an immediate general increase in all freight rates, except on grain, of eight per cent (or 10 to 20 cents per ton on coal and coke) was filed last July 14 (*Railway Age*, July 21, page 12). At that time, the increase requested was seven per cent, but this was amended to eight per cent in September (*Railway Age*, September 22, page 15). The July 14 application also called for a subsequent general increase of an additional nine per cent, which has not yet been considered by the board.

Delay in Rate Increases Cost PRR Over $400,000,000

If rate increases finally granted by regulatory bodies had actually been made effective 30 days after applications, the Pennsylvania in recent years would have realized more than $400,000,000 in additional gross revenues, James M. Symes, PRR executive vice-president, said in Philadelphia on October 22. Addressing the annual correspondent bank meeting of the Pennsylvania Company for Banking & Trusts, Mr. Symes pointed out that during the period of which he was speaking the railroad was forced to borrow millions of dollars for improvements that otherwise could have been financed, at lower cost, out of earnings.

The PRR executive cited three principal reasons for the present comparatively unhealthy situation of railroads: "The procedures of regulation under which we are required by law to operate are outmoded and wholly inadequate to cope with present day conditions—and with the ravages of in-



THIS TRANSPARENT BOX CAR is the Union Pacific's latest step in a campaign to reduce loss and damage. One entire side of the car, including the door, is fitted with Plexiglas—a transparent plastic—backed by a metal screen to protect it from the pressures of the load. A three-foot wide speedometer (right end of car) and a recording speedometer (left end of car) are used to indicate the speed of the car at the time of impact. The car will tour the UP's 10,000 miles of line so that yard and train service employees can learn the effects of switching and other impacts on lading. Reportedly the "first car of its kind," it will also be used to check different loading methods and various types of bracing. **See also page 85.**

TRIP THE LIGHT FANTASTIC as you travel by rail in this special car available to large groups touring on the Danish State Railways! The dance floor (at rear of photo), is more than 20 feet long and as wide as the car. It adjoins a cocktail lounge equipped with bar and tables.

flation since World War II. Secondly, we do not have a national transportation policy designed to promote free competition between the several transportation agencies involved. The inherent economic advantage of railroad transportation is being submerged by subsidy to the highways, airways and waterways.

Finally, there has been a lack of public sympathy and political understanding as to the unhealthy situation presently existing in our national transportation system.

Rule G More Honored In Breach Than Observance, Says Beven

"The matter of consumption of intoxicating liquors—both on and off duty—has assumed enormous proportions. It would probably astound us if we could know how many personal injuries are due directly to drinking," T. D. Beven, president of the Elgin, Joliet & Eastern, told members of the Railroad Section of the National Safety Council at one of the section's three daily meetings held in Chicago during the National Safety Congress and Exposition on October 20-24.

"It might be even more astounding," he continued, "if we could ascertain how many of our employees—particularly on the afternoon and evening shifts—come to work with their faculties dulled by consumption of alcohol. Possibly they aren't drunk, but certainly they aren't as bright and alert as a total abstainer . . . Our own rules forbid use of alcohol, but 'Rule G,' like so many other fine rules these days, is more honored in its breach than in its observance.

"It is virtually impossible to *prove* that a man is under the influence of alcohol. Even when it is, and disciplinary action is taken, it is likely that the National Railroad Adjustment Board will sustain a claim from the employee. Such things have a bad effect on supervision. Even the most conscientious supervisor hesitates to take action which he knows in advance will not be upheld.

"I believe our best chance of licking this hazard is to convince the sober employee that it is not only his duty to his employer, but also to himself and his family, to refuse to work with anyone who is not in a condition to properly perform his duties, just as he would refuse to work with an unsafe tool or piece of equipment."

Safety Costs Money

"Management must realize that safety will cost some money," H. J. McKenzie, president of the St. Louis Southwestern, told members of the section. "Management must stand ready to make expenditures necessary to eliminate hazards and unsafe conditions. Safety pays good dividends from a mercenary as well as humane viewpoint."

Mr. McKenzie said that all officers and supervisors must be familiar with their railroad and know the problems, thinking and reactions of their employees. "They should know the jobs that their men are handling and the difficulties being encountered, and, above all, make a study of human beings in an effort to eliminate human failure. I think the best way to accomplish this is to take a motor car trip over your railroad; talk safety to all of your people and listen to their problems and suggestions.

"However, I have seen supervisors who have stressed safety so much that getting the job done was a secondary matter. I have been with gangs where the foremen have scared their men to the extent that they were actually afraid to undertake the work or handle it with dispatch. Let's not just teach safety, but how to do the job safely," he concluded.

Sincerity Essential

Howard W. Hale, superintendent of transportation of the St. Louis-San Francisco, described the philosophy behind the Frisco's successful safety program. "The sincerity of the purpose behind our program has been a major factor in putting it across with our employees," he said, adding that it was the employees, in turn, who put the program over with key segments of the public — "the community public, the customer and stockholder public and the opinion-molding public."

A warning that increasing conversion from mechanical to electrical tools and equipment has brought new electrical hazards to shop workers, was issued by T. G. Isel, assistant car equipment engineer of the Pullman Company. "Although protective devices may help, there is no substitute for consciousness on the part of an individual to his surroundings," Mr. Isel said.

"Authority is Lacking"

The superintendent of safety, because he lacks direct executive authority, is "more or less hog-tied unless he gets full cooperation from the top men in all departments," G. R. Andersen, assistant chief mechanical officer of the Chicago & North Western, told members of the section. "Unfortunately departmental heads often fail to recognize that accident prevention is a part of their job. Thus, no matter how aggressive and active a safety supervisor may be, the progress of safety is frequently retarded."

C. M. House, general superintendent of motive power and car equipment, Gulf, Mobile & Ohio, described new fire hazards that shop supervisors face with the introduction of diesel power. Another hazard, he said, was the "relatively small size and high stress of diesel engine bolts and the use of improper or oversized bolts—either in fit or capacity." He listed what he termed "the 14 danger points on diesel locomotives."

New Officers

R. C. Sabens, superintendent of safety, New York, Chicago & St. Louis, was elected general chairman of the section. R. S. James, superintendent

NEW SERVICES AND PUBLICATIONS OF INTEREST TO SHIPPERS

CANTON—Has just opened for service its new ore pier at Baltimore.

CHICAGO, BURLINGTON & QUINCY—*On October 28 opened for service its "Centennial Cut-Off" on the line between Chicago and Kansas City. It is expected that freight train schedules between these two points will be reduced by from 2½ to 6 hours over the new line.*

JERSEY CENTRAL LINES—Has issued a 20-page illustrated booklet describing expenditures designed to give "Better Service for JCL Shippers." Included in this booklet is a description of the railroad's new yard at Allentown, Pa. (See page 73.) The booklet is available at all JCL traffic offices.

LOUISVILLE, KY.—*The transportation division of the Louisville Chamber of Commerce has issued a "Shippers Directory of Suggested Routings Via Rail Less Than Carload Freight from Louisville." The objective of this publication, which asks Louisville shippers to use the routings, is to channelize l.c.l. into these routes so that more through cars can be made, thus providing better service. For each destination city the directory gives transit time, the car line in which the shipment will be loaded, and the route. Louisville shippers pay $2 for the guide.*

NEW YORK CENTRAL—Has announced the following changes in scheduled l.c.l. car lines:

Car lines discontinued:

Akron, Ohio (Erie) to Buffalo, N.Y.; Buffalo (DL&W) to Carroll st., Buffalo, to Watertown, N.Y., to Jersey City, N.J., and to Poughkeepsie, N.Y.; Cincinnati to Greenville; Cleveland (NKP) to Buffalo (Carroll st.); Dunkirk, N.Y., to Buffalo; Hornell, N.Y. (Erie) to Buffalo; Indianapolis to Rock Island, Ill. (CRI&P); Jamestown, N. Y. (Erie) to Buffalo; Jersey City (Erie) to Buffalo; Syracuse, N.Y., to Poughkeepsie and Youngstown, Ohio; Warren, Pa., to Buffalo; Warren, Ohio, (Erie) to Buffalo. Springfield, Mass., car to Albany, N.Y., no longer in "Pacemaker" service.

New car lines:

Akron (Erie) to Niagara Falls, N.Y.; Baltimore (PRR) to Yonkers, N.Y.; Buffalo (DL&W) to Niagara Falls; Chicago (So. Water st.) to Springfield, Ohio; Cleveland (NKP) to Niagara Falls; Dayton, Ohio, to Greenville (truck); Dunkirk, N.Y., to Syracuse; Hornell, N.Y. (Erie) to Syracuse; Indianapolis to Davenport, Iowa (CRI&P); Jamestown, N.Y. (Erie) to Niagara Falls; Jersey City (Erie) to Niagara Falls; LeRoy, N.Y., to Syracuse; Syracuse to Jordan-Memphis; Trenton, N.J. (PRR) to Springfield, Mass.; Warren, Ohio (Erie) to Niagara Falls; Warren, Pa., to Syracuse. Cars between Buffalo and Cincinnati are now in "Pacemaker" service.

The freight traffic department has recently issued another of its "L.C.L. Merchandise Service" bulletins, dated October 1952. This bulletin announces that:

There are no peddler cars on the NYC's Big Four and Peoria & Eastern districts, all of them having been replaced with substituted truck service;

If the I.C.C. grants the railroad's application to expand substituted truck service to the Lines West district, more than 1,000 stations along the 1,700 miles of the Lines West will receive this service;

Mechanization of more freight stations;

More freight stations on the NYC have begun using the veri-check ballot, including all transfers on the Big Four, to provide "positive tracing" information;

Five hundred steel bulkheads are being placed in service to replace wooden ones;

A supervisor of station service committees has been appointed. Station service committees, composed of station employees and supervisory personnel, are active at more than 100 NYC stations, in an effort to improve service and cut loss and damage;

"Pacemaker" car lines now number about 200. "Pacemaker" cars are designed to insure maximum lading protection at high speeds. Turnaround time for "Pacemaker" cars is four days, considerably below the average for all box cars, "proof that these speeds are achieved."

PENNSYLVANIA — Has announced the following changes in scheduled l.c.l. car lines:

New car lines:

York, Pa., has been set up as a transfer for northbound cars out of the south and the following car lines have been established: York to Jersey City, N.J., Newark, N.J., Long Island City, N.Y. (LI), Boston (B&M); Yonkers, N.Y. (NYC), Scranton, Pa. (DL&W), Jersey City (Erie); Camden, N.J., Newberry Jct., Pa. (NYC); and Buffalo.

Canton, Ohio, now is making cars to Trenton, N.J., and Cedar Hill, Conn. (NYNH&H).

ST. LOUIS-SAN FRANCISCO—*Has opened a new traffic office in Room 213, Terminal Station, Macon, Ga. J. B. Wright is general agent in charge.*

TRANSPORTATION AND PACKING SURVEY—A report on factors involved in loss and damage to products packed in fibre boxes (See page 85.)

of safety and fire prevention, Denver & Rio Grande Western, was elected vice-chairman, and F. R. Callahan, director of safety and compensation, Pullman Company, was elected secretary. L. E. Hoffman, superintendent of rules and safety, St. Louis Southwestern, retiring chairman of the section, presided at all sessions.

C&O Resumes All Car Ferry Services

A strike of the Great Lakes Licensed Officers Organization that had begun on July 4, came to an end on October 23 as car ferry service of the Chesapeake & Ohio was resumed across the Detroit river between Detroit and Windsor, Ont. Operation of the C&O's trans-lake Michigan service was resumed at 7 p.m. on October 25 bringing to a close a walkout that had halted Great Lakes operations of the Ann Arbor, Grand Trunk Western-Pennsylvania, Wabash and C&O for nearly four months. An earlier report of the restoration of service by the GTW appeared on page 18 of the October 27 *Railway Age*.

The C&O reached an agreement with the Licensed Officers group which: (a) provided wage increases from 78 cents a day to $2.73 a day for different classes of engineers; (b) re-employed certain men who had been discharged for leaving their ships without permission—but with a loss of certain classes of seniority; (c) provided a three-year "no-strike" agreement and (d) a one-year moratorium on changes in the agreement as presently reached. The increased wages include a cost of living increase. Actually, a C&O spokesman said, the base rates in some instances were reduced by the new agreement. The increase was essentially that which the company had offered prior to the walkout, he added.

"Oscars" Awarded for 1951 Annual Reports

The Monsanto Chemical Company has received the gold "Oscar of Industry" for its 1951 annual report, which was adjudged the best of all industry in the annual contest sponsored by the magazine Financial World. The trophy was presented to Charles A.

COMING—A NEW MONTHLY MAGAZINE FOR SHIPPERS

Beginning in January 1953, the Simmons-Boardman Publishing Corporation, publishers of *Railway Age* and other transportation periodicals, will inaugurate publication of an entirely new monthly magazine, *Railway Freight Traffic*.

The new magazine, representing an expanded service both for shippers and for railroads, will be a logical transition from *Railway Age's* monthly Freight Traffic Issues, which it will replace. The purpose of changing these Freight Traffic issues into a separate publication is to broaden the scope of the service they have rendered, and to increase the value of that service to shippers and to railroads alike. *Railway Freight Traffic* will be distributed to leading shippers throughout the United States and Canada, to keep them abreast of all new developments in railway freight service.

Thomas, Monsanto president, by Paul W. Johnston, president of the Erie, winner of last year's top award, at a banquet in New York on October 28.

Bronze "Oscars" for the best annual reports of railroads in their respective regions were awarded to the Canadian National (Canadian); Erie (Central Eastern); Chesapeake & Ohio (Midwestern); New York Central (Northeastern); Great Northern (Northwestern); Seaboard Air Line (Southeastern); and Denver & Rio Grande Western (Southwestern). A bronze "Oscar" was presented to the Pettibone Mulliken Corporation for the best annual report in the railroad equipment field.

Santa Fe Opens New Chicago Freight House

With more than 100 shippers, railway officers and representatives of the press in attendance, the Santa Fe, on October 28, officially opened its new modern freight house at Corwith yard on Chicago's southwest side. At an informal luncheon following an inspection tour, president F. G. Gurley explained that the new facility was part of an overall multi-million dollar program to rehabilitate the Corwith terminal which he frankly said was "probably the most obsolete on our entire system." Other recently completed phases of the program—including a new general office building and a new engine terminal—were pointed out to guests during the inspection.

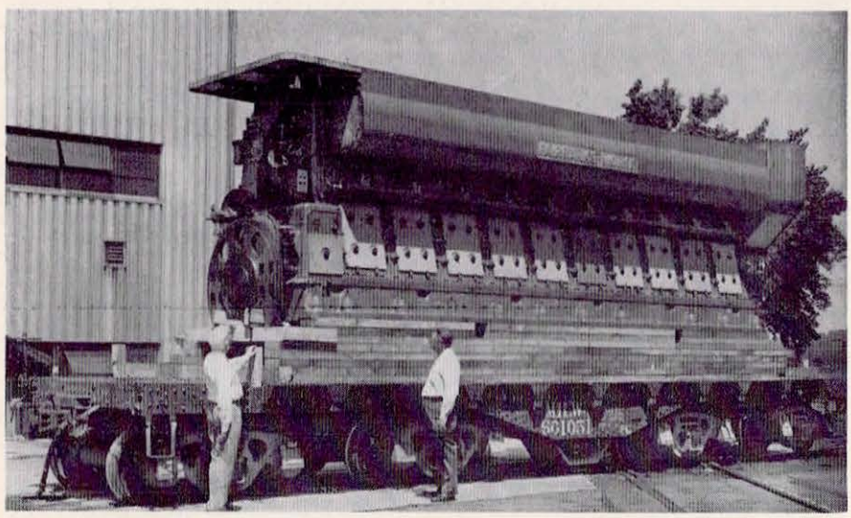
The new freight house is equipped with an under-floor chain conveyor system for handling platform trucks and features a nine-station centralized checking system with 35 portable talk-back speakers that may be used at any of 132 plug-in connections in loading and unloading zones. Actual cost of the new station was not disclosed.

Produce Group Suggests More Reefer Construction

A suggestion that the railroads and the produce industry take "immediate concerted action" to increase the refrigerator car supply has been submitted to President William T. Faricy, Association of American Railroads.

John N. Kelley, chairman of the Refrigerator Car Committee, United Fresh Fruit and Vegetable Association, wrote Mr. Faricy and expressed con-

(Continued on page 106)



THIS 3,500-HP. FAIRBANKS-MORSE engine, weighing nearly a quarter of a ton, is said to be the heaviest shipment ever dispatched from F-M's Beloit, Wis., plant on a single railroad car. The special heavy-duty flat car, which will take the engine to Denton, Tex., is one of two such cars owned by the Chicago, Milwaukee, St. Paul & Pacific. Because of limited crane capacity, the engine, after final assembly and testing, was torn down and reassembled aboard the car. Normally, an engine of this size is shipped only partially assembled and requires three flat cars.

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended October 25, 1952 were announced by the Association of American Railroads on October 30, 1952 as follows:

	Surplus	Shortage
Plain Box	20	7,550
Auto Box	0	87
Total Box	20	7,637
Gondola	1,634	2,073
Hopper	25,113	902
Covered Hopper	0	196
Stock	117	238
Flat	27	287
Refrigerator	1,107	95
Other	499	1
Total	28,517	11,429

ORGANIZATIONS

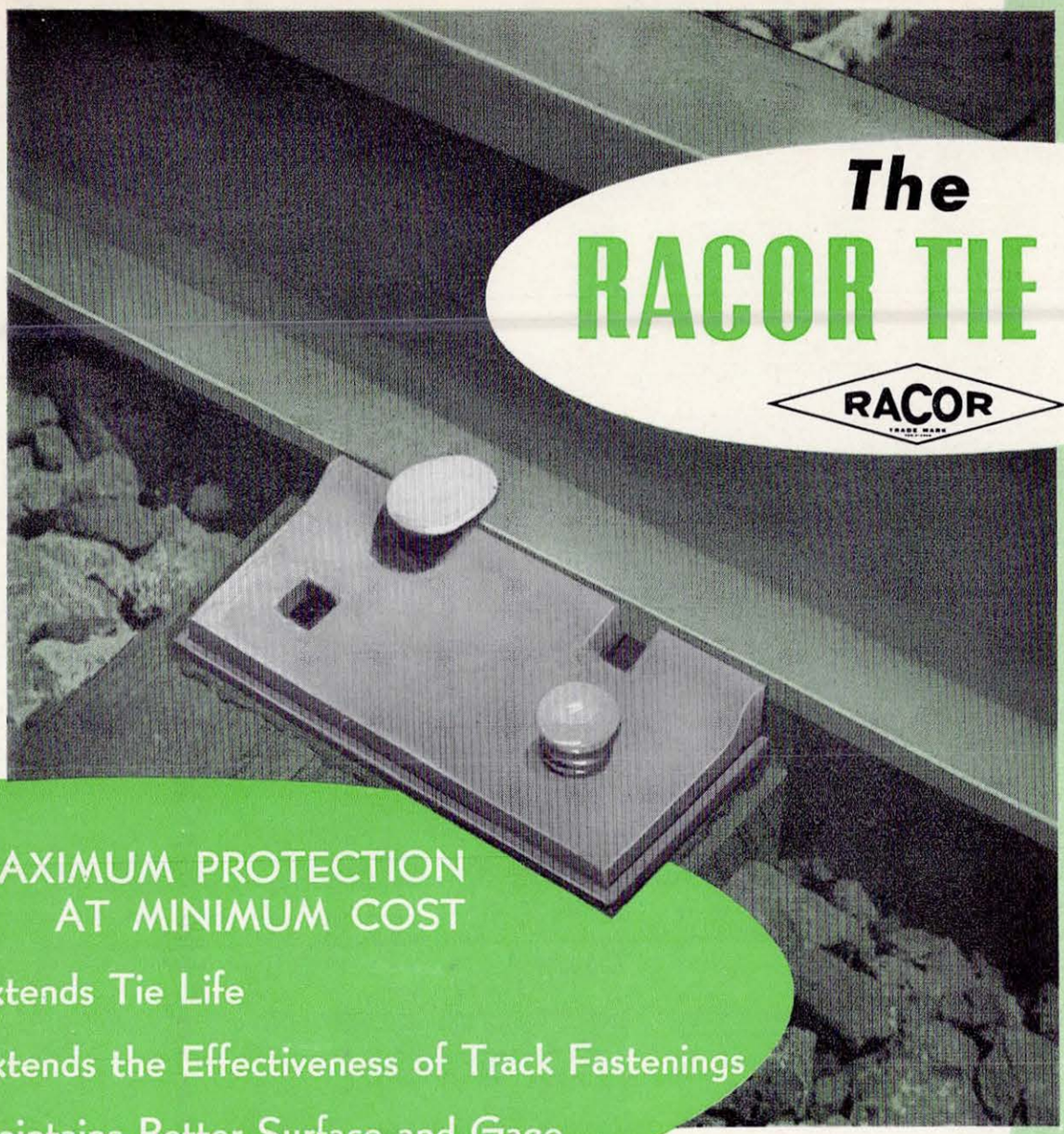
Short Lines to Meet in Atlantic City Next June

A special meeting of the American Short Line Railroad Association will be held on June 23, 1953, in the Viking room, Haddon Hall, Atlantic City, N. J. This meeting coincides with meetings of the Mechanical and Purchases and Stores Divisions of the Association of American Railroads; the Railway Supply Manufacturers Association's exhibit of railway equipment and appliances, and the Eighth Pan American Railway Congress, which will be in session in Atlantic City during the entire week of June 21. Unless otherwise announced, this will be the only general meeting of representatives of the American Short Line Railroad Association during 1953.

The next meeting of the **Clearing-Cicero Traffic Conference** will be held on November 13, at the Clearing Club, 6445 South Central avenue, Chicago. The principal speaker will be Walter Belson, director of public relations of the American Trucking Associations.

The meeting of the **New England Railroad Club** to be held on November 12, at the Hotel Vendome, Boston, at 6:30 p.m., has been designated as "Canadian Night." M. A. Bradley, director of public relations of the M. A.

(Continued on page 101)



The RACOR TIE PAD

RACOR

★ MAXIMUM PROTECTION AT MINIMUM COST

★ Extends Tie Life

★ Extends the Effectiveness of Track Fastenings

★ Maintains Better Surface and Gage

The RACOR TIE PAD is a rubber-fibre pad coated with an asphaltic compound. It is designed for maximum durability and protection of the tie at minimum cost. Although of minimum thickness, it possesses the necessary strength to withstand the destructive forces in track.

Exhaustive tests on the TIE WEAR MACHINE show that the RACOR TIE PAD is most effective in preventing tie abrasion, in maintaining a clean, comparatively moisture-free tie under the pad — and in maintaining its own shape and physical properties under severe test conditions. Intensive research and years of experience in this type of manufacturing has given us the "know-how" to produce the RACOR TIE PAD of a material with maximum utility and most economically.

Contact your nearest RAMAPO representative for further information.

America's most complete Line of Track Specialties

RACOR STUDS

AUTOMATIC SWITCH STANDS

VERTICAL SWITCH RODS

SAMSON SWITCH POINTS

SWITCH POINT LOCKS

RAIL LUBRICATORS

ADJUSTABLE RAIL BRACES

DEPTH HARDENED CROSSINGS

REVERSIBLE MANGANESE STEEL CROSSINGS

MANGANESE STEEL GUARD RAILS

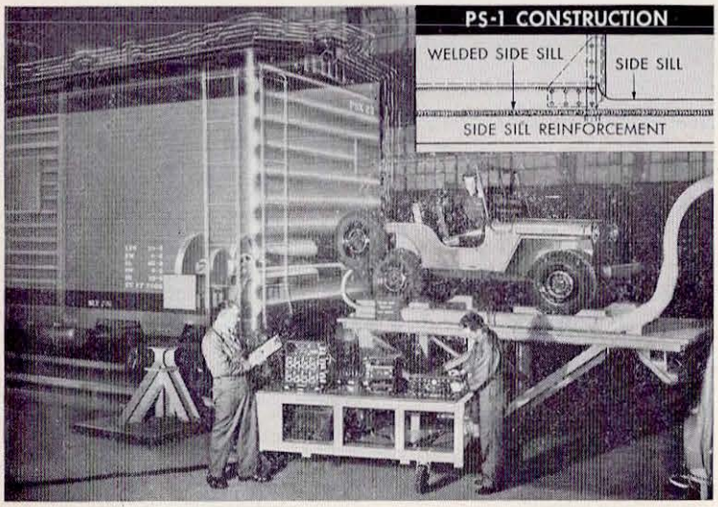
MANGANESE STEEL SWITCH POINT GUARD RAILS

AMERICAN Brake Shoe COMPANY

RAMAPO AJAX DIVISION

109 North Wabash Avenue, Chicago 2, Ill.

PS-1 box cars being delivered! Each PS-1 is a completely standardized car and each is built to the strict specifications of Pullman-Standard. For the first time in railroading, orders can be placed for 1 or as many as 5,000 PS-1s. That this modern freight car has shown its dependability for 56 railroads can be proved by the number of repeat orders. Many railroads have re-ordered the PS-1 as many as four or five times.



Fatigue tests in the Pullman-Standard Research and Development Laboratory reproduce conditions encountered at speeds of approximately 50 mph. to discover possible trouble spots. The jeep drives an oscillating device (*shown in the phantom view above*), mounted over the center sill at the bolster. Two eccentric flywheels build up a vibration so severe that the lading leaves the floor as the whole car bounces up and down.

Exhaustive tests indicate that PS-1 construction of side sill and reinforcement at the doorway has overcome costly maintenance experienced at this location in many other current designs of cars. To verify these tests, Pullman-Standard engineers travelled over 112,000 miles last year. (*Inset of illus. at left*) This is but one of the many construction features that enables the PS-1 to give more service miles with less maintenance.

SUBSIDIARY OF

CAR BUILDING DIVISION **PULLMAN**

79 EAST ADAMS STREET, CHICAGO 3, ILL. • BIRMINGHAM

56 railroads have ordered

Freight cars, subject to the gruelling punishment of today's operating conditions, must earn the approval of railroads through dependable, economical performance. The acceptance of the PS-1 by American railroads proves the "Pullman" standard of box car construction. Repeat orders indicate the standardized PS-1 box car has met these conditions fully.

50,000 PS-1s

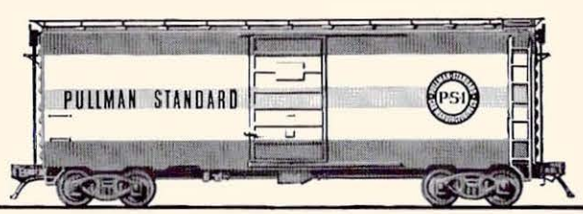
One reason for the PS-1's ability to meet and beat the most severe operating conditions is that Pullman-Standard's interest does not stop when the PS-1 is delivered. Research and "on-line" investigation of hundreds of load, speed, and switching situations assures continuous improvement of PS-1 specifications, so that railroads can be supplied with the most advanced freight car that can be built.

built to the "Pullman" standard

During the last year, freight car production at Pullman-Standard's Michigan City plant alone was not approached by any other shop. Size of orders ranged from 1 to as many as 3,000 PS-1s. Railroad acceptance shows that the standardized PS-1 merits the leadership it has gained in just five years. If you require fast delivery of an outstanding box car—at lower costs—get the facts on the PS-1.

When you come to Chicago, visit our Michigan Avenue Industrial Showroom.

The RECORD BREAKING **PS-1**



PULLMAN INCORPORATED

— STANDARD CAR MANUFACTURING COMPANY

PITTSBURGH • NEW YORK • SAN FRANCISCO • WASHINGTON

All Around Performers

for shop or M of W

WELDING AND CUTTING

CHECK THESE "800" HIGHLIGHTS YOURSELF . . .

- **EXCEPTIONAL VERSATILITY** . . . from welding and cutting to descaling and flame cleaning, hardening, and hardfacing.
- **WIDE TIP RANGE** . . . long flame or bulbous up to size 10. In separable swaged tips — up to size 13.
- **LOWER OPERATOR FATIGUE** . . . 10 inches long; 21 ounce weight; planned balance minimizes operator fatigue.
- **FOR METAL CUTTING, TOO** . . . quickly converted for cutting either thin sheets or heavy plate up to 5-6" thick.

Ask for Catalog 2, Hand Torches for Welding and Cutting.

The Airco No. 800 Torch — with wider welding range than any other torch on the market — is ready for any job from car side sheets to main frames. Its weld-and-cut versatility makes it a natural for shop or along-the-track field work where a torch must withstand a lot of rough handling.

AND . . . the Airco 8400 series two-stage regulator . . . your guarantee of constant gas pressure. One pressure setting needs no further attention. Saves time, gas, with trouble-free operation — gives better flame performance in welding and cutting. Ask for Catalog 5, Regulators.

SUPPLIES, TOO . . . To complete the team for all around shop or maintenance-of-way welding, Airco offers a number of gas welding rods and electrodes, especially tailored for railroad service. You'll find them described in Catalog 12, Supplies. Ask for your copy today.

AIRCO®

AIR REDUCTION

AIR REDUCTION SALES COMPANY · AIR REDUCTION MAGNOLIA COMPANY
AIR REDUCTION PACIFIC COMPANY
REPRESENTED INTERNATIONALLY BY AIRCO COMPANY INTERNATIONAL
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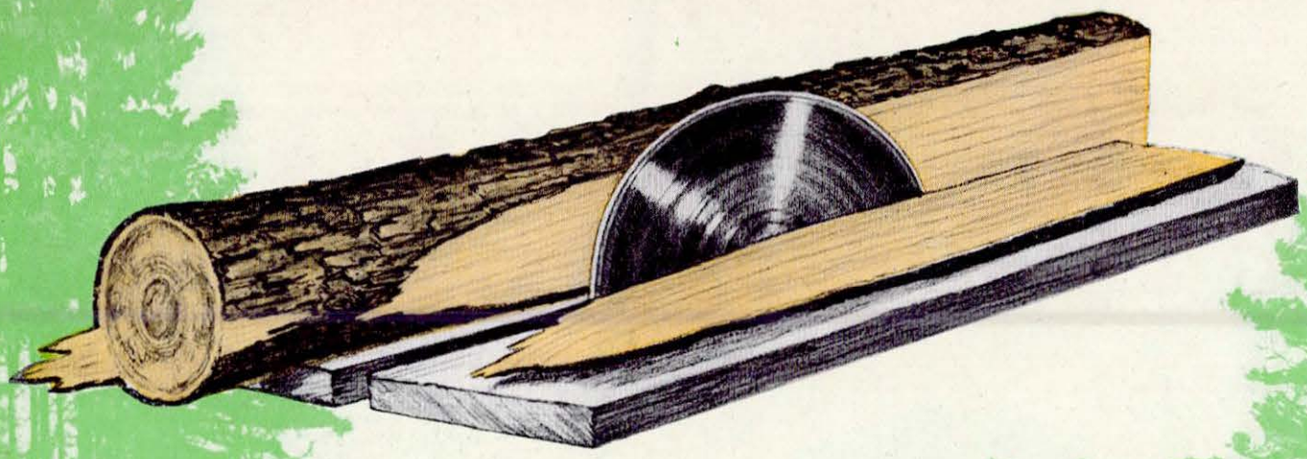
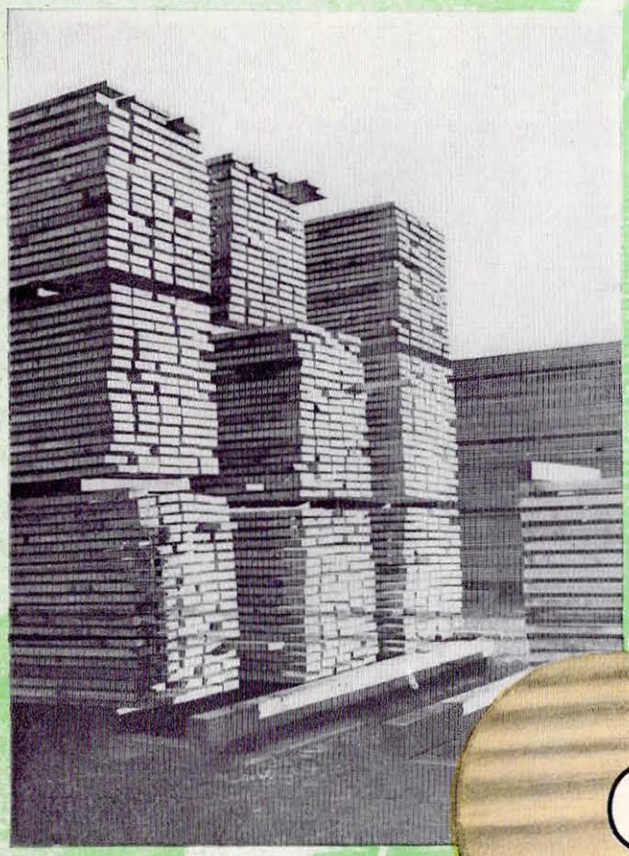
at the frontiers of progress you'll find AN AIR REDUCTION PRODUCT



The Southeast...

A Prime Source of the Nation's Urgent Building Needs



AMERICA'S building industry draws heavily on the rich timber resources and extensive processing plants of the Southeast. Lumber, shingles, lath and other building materials are moved promptly and efficiently over *Coast Line's* modern facilities.

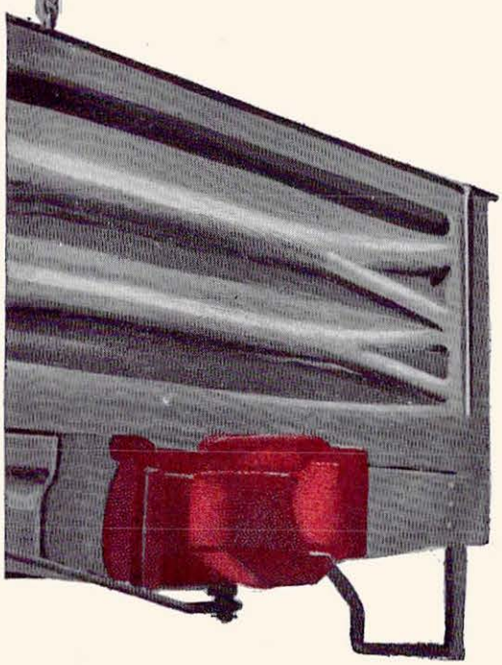
ATLANTIC
COAST LINE
RAILROAD

SPECIFY

HYATT ROLLER BEARING JOURNAL

HYATTS

protect your investment in new freight cars



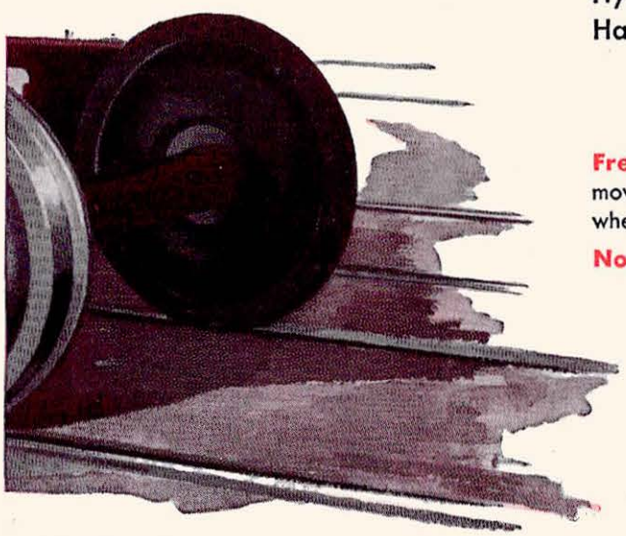
Right now—when you are ordering new freight cars—is the time to provide protection for the investment you are making.

Be positive that your cars will be really new—and will stay new—with the newest thing in roller bearing journal boxes—"Hyatts for Freight."

What you need today is freight carrying equipment that will stay in balance with the improved motive power, better roadbeds, modern signaling equipment and faster schedules of modern railroading.

To make your new freight cars modern from the rails up, start by specifying pedestal type trucks with Hyatt Roller Bearing Journal Boxes. They will surely be the standard of tomorrow.

Hyatt also offers package type roller bearing journal boxes for installation into existing loose side frame freight car trucks. If you are contemplating roller bearings for freight equipment, call or write for additional information. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.



HYATT OFFERS EXTRA ADVANTAGES

Free lateral a unique Hyatt design advantage, allows freedom of axle movement through the bearing, thus cushioning shocks, minimizing wear on wheels and truck parts, and insuring against damage to lading.

No press fits to break when removing boxes for inspection.

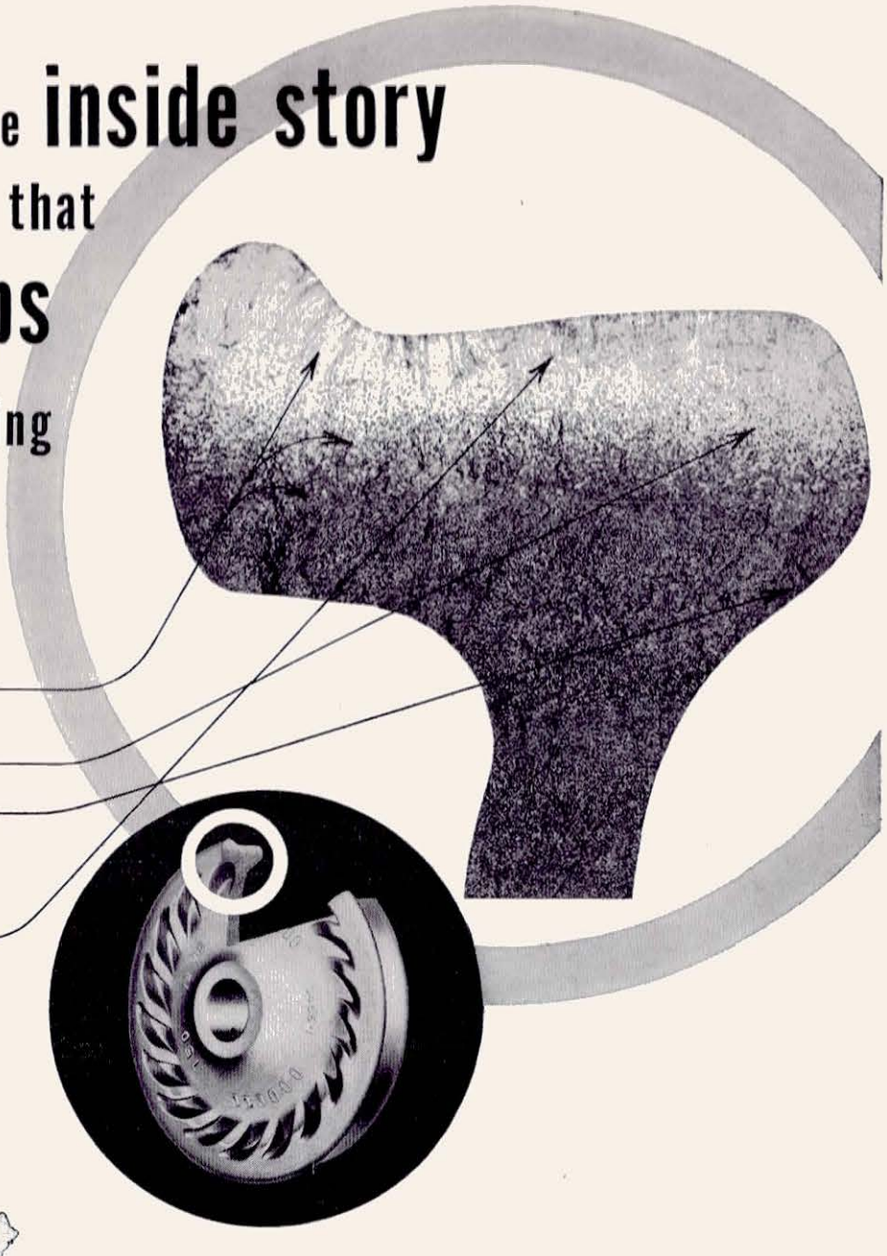
Reduced inventory is possible because spare axles and wheels need to be fitted with inner races only.

Straight radial rollers of generous size provide for maximum load-carrying capacity and longer usable life.

Simplicity of design permits examination of all box and bearing parts with utmost freedom.

BOXES • • • *for freight cars*

the inside story of the wheel that never stops improving



a 10-year record of improved values

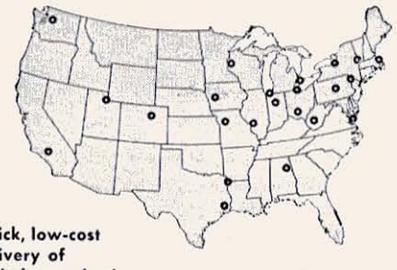
1941-1946 Improved Control of mottled iron formation, providing clearer chill at tread and more impact resistant gray iron backing.

1945 AMCCW plants adopt limitation on chill depth in rim.

1945 Rim thickness increased.

1947 More rigid inspection and standards for rotundity adopted for wheels shipped from AMCCW plants.

1950 New wheel design features heavier tread (stronger flange and rim) and more brackets (thicker, heavier, more continuous flange support).



Quick, low-cost delivery of chilled car wheels from the AMCCW plant near you.

The 10-year record of progress gives you the inside story of why AMCCW wheels are making better safety records . . . a ratio of only one failure to each 134,000,000 car miles in 1951 and better yet in 1952.

(And the new AMCCW design with its 100% increase in rim strength and 20% increase in flange strength is just beginning to roll.)

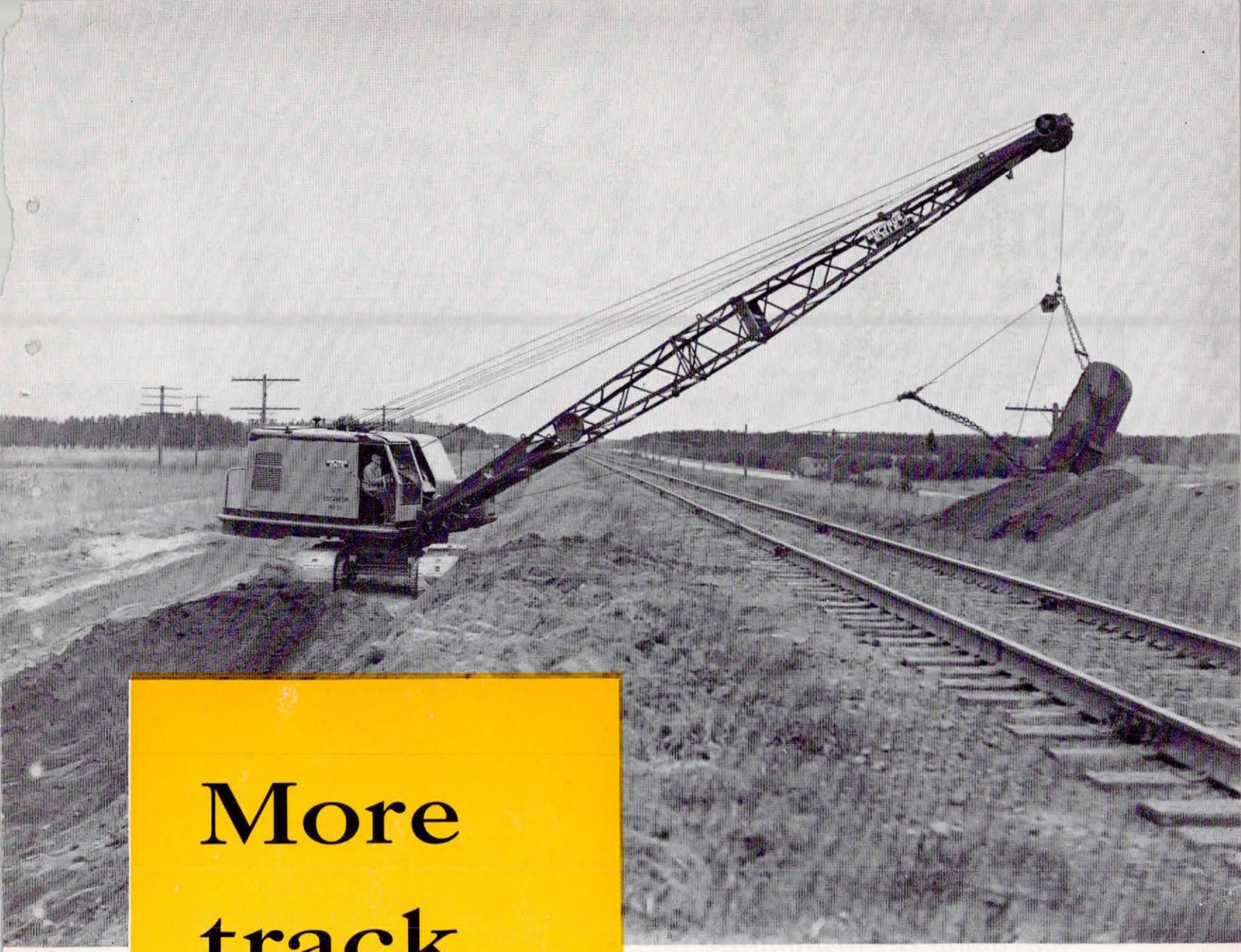
The record shows why chilled car wheel performance has improved continuously over the years, and is a pretty good indication of why it will continue to improve in the years to come.

In good supply
Available locally
Short-haul delivery
Reduced inventory
Low first cost
Low exchange cost
Increased ton mileage
High safety standards
AMCCW plant inspection
Easier shop handling

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

445 North Sacramento Boulevard, Chicago 12, Ill.

Albany Car Wheel Co. • American Car & Foundry Co.
Griffin Wheel Co. • Marshall Car Wheel & Foundry Co.
Pullman-Standard Car Mfg. Co. • Southern Wheel (American Brake Shoe Co.)



More track

for the Northern Pacific

This Bucyrus-Erie 38B Dragline is helping to extend a Northern Pacific passing track near Willow River, Minn. Its 1½-yd. bucket makes that long swing over the roadbed every 22 seconds, handling about 1,400 yds. of sandy clay and gravel in an average 8-hour day. Power for the job is furnished by a "Caterpillar" D13000 Diesel Engine.

The Northern Pacific owns a lot of "Cat" off-track equipment, so they knew what to expect from this engine: dependability on tough jobs, economy, simple operation. Take the fuel system, for example. There's not a single operating adjustment required. And its pre-combustion chambers and single orifice injection valves let you run your "Caterpillar" Engine thousands of hours on regular fuel without fouling or clogging.

There's a complete range of "Caterpillar" Engines up to 500 HP, for off-track and motive power. These engines are available in machines built by the leading equipment manufacturers. You'll get better performance at lower cost with years of added service if you specify "Caterpillar" power in the equipment you buy.

CATERPILLAR, PEORIA, ILLINOIS

CATERPILLAR

REG. U. S. PAT. OFF.

Railroad Diesels

some important *facts* about

Car efficiency with solid bearings exceeds 99.97% even though cars average over 20 years old. Railroads get maximum car availability per car dollar invested—and the facts prove it!

You get *more cars* for your money when they're solid bearing equipped. According to most estimates, the much lower cost of the solid journal bearing, compared to any other bearing type, actually lets you buy about 20% more cars for the same initial investment. That means a 20% greater car availability for every car dollar you spend.

And what about solid bearing performance? The *facts* speak for themselves. Only about one car out of every 4,000 per day experiences any bearing trouble. That's a car efficiency of better than 99.97%—obtained, too, with cars that average 20 years old! It's a mechanical efficiency much better than that offered even by truck competition.

FACTS AND FIGURES

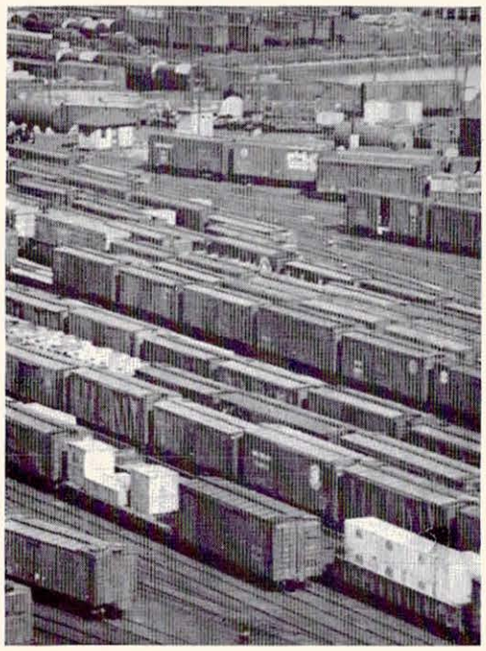
Of course, this doesn't mean that hot boxes are not still a problem. But let's see how they affect *car availability*. Throughout the year, freight cars now average about 500 hot boxes a day for the entire two-million car fleet. If these hot boxes could be completely eliminated, daily car

Freight Car Bearing Performance on 5 Class I Railroads Jan. - June, 1952

ROAD	CAR MILES	CAR MILES PER HOT BOX
A	671,393,660	805,028
B	841,889,615	583,430
C	342,236,133	1,306,244
D	608,257,451	677,347
E	79,531,783	548,495
Total	2,543,308,642	710,025

Here are the records for five top railroads in bearing performance. These records can be equalled or bettered by other roads.

CAR AVAILABILITY



availability would be increased by only 1/40 of 1%!

Now some interests would have the railroads embark on a $2 billion program to replace solid bearings with unproved and far more costly bearing types that offer no assurance of improved performance in freight service. Yet even if they *could* put an end to all bearing troubles, car availability as determined by hot boxes would still be increased by only that same 1/40 of 1%. For this amount of money, 400,000 new solid bearing freight cars could be added — again increasing the nation's car availability by 20%!

HOW TO LICK HOT BOXES

With improved maintenance practices and an intensified program of solid bearing development, hot boxes will all but disappear! Higher grade oils and improved lubricators are musts. Low cost alarms and heat resistant lining metals are already available. If you really want to lick hot boxes, at a cost that's in line with the economic realities of rail freight operation, you can do it best with low-cost solid-type bearing designs.

Then, too, you'll still have all the other advantages which solid bearings bring to railroad rolling stock. You can take the maximum load, make the fastest schedule. You'll save an average of 1,000 pounds per car and get the smoothest (and quietest) ride on any standard truck. But best of all, you'll be sure of the best possible bearing performance at the lowest possible cost.

with **Low-Cost Solid Bearings**

get all the facts about solid journal bearings in modern freight service

This 20-page booklet gives you a straightforward, factual and undistorted picture of freight car journal bearing performance and economy. It's yours for the asking, without obligation of course. Just write a post card or letter to Magnus Metal Corporation, 111 Broadway, New York 6; or 80 E. Jackson Blvd., Chicago 4.

MAGNUS

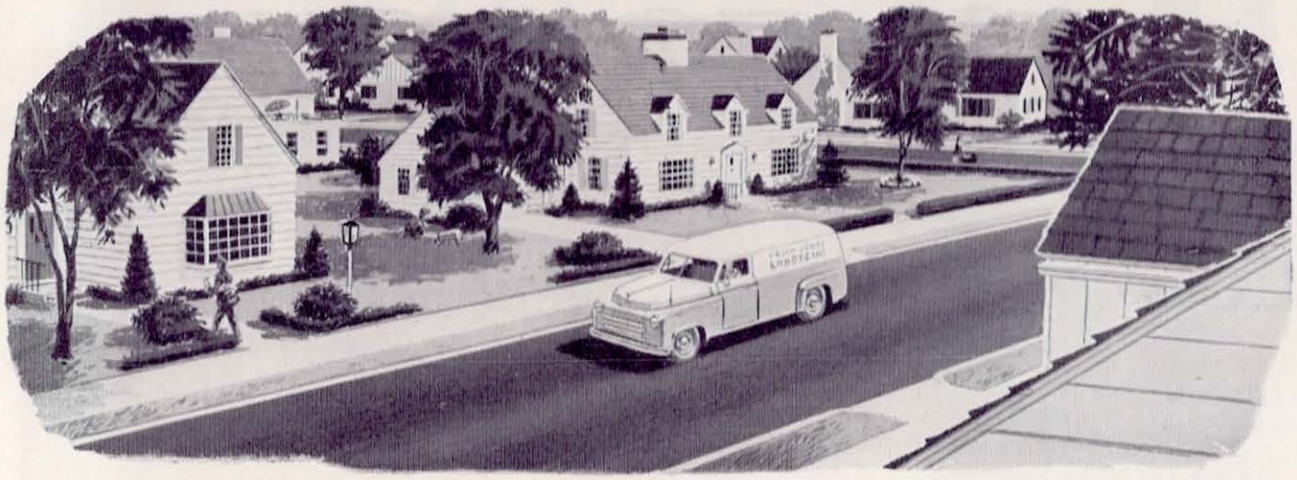
Solid Bearings

Right for Railroads

...in performance...in cost

MAGNUS METAL CORPORATION *Subsidiary of* **NATIONAL LEAD COMPANY**

A Tale of Two Roads



This is a road that serves you every day. It is the public road that takes you where you want to go and brings you things you use.

This is another road that serves you every day. It is the steel highway of the railroads on which trains provide the low-cost mass transportation so essential to America's tremendous agricultural and industrial production. Without railroads, even motor vehicles could not exist and operate.

The public roads—built and maintained by taxes you pay—are designed to take care not only of your automobile but also of the 95 per cent of all motor trucks which are engaged in farm and local delivery and industrial use. But to take care of the other 5 per cent of trucks—the big, heavy, highway freighters—calls for roads more expensive than are needed by the vast majority of highway users.

On the other hand, railroads—built and maintained at their own expense—are for heavy-duty hauling. These railroads carry—for you and all America—more tons of freight more miles than all other forms of transportation combined, and do it for charges which average less than those of any other form of general transportation.

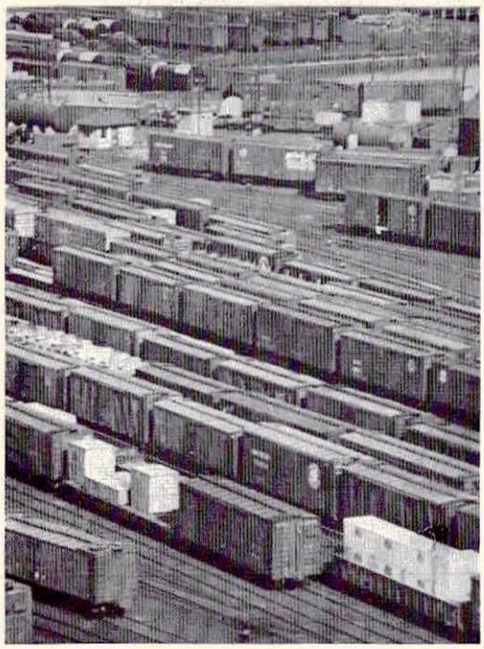
And the more freight the railroads carry, the less wear and tear there will be on your public highways—and the less you, as a taxpayer, will have to pay for building and maintaining these highways.

Association of American Railroads

WASHINGTON 6, D. C.

You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.

CAR AVAILABILITY



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See Our Catalog Data in RAILWAY SUPPLY INDUSTRY Yearbook 1952

MAGNUS

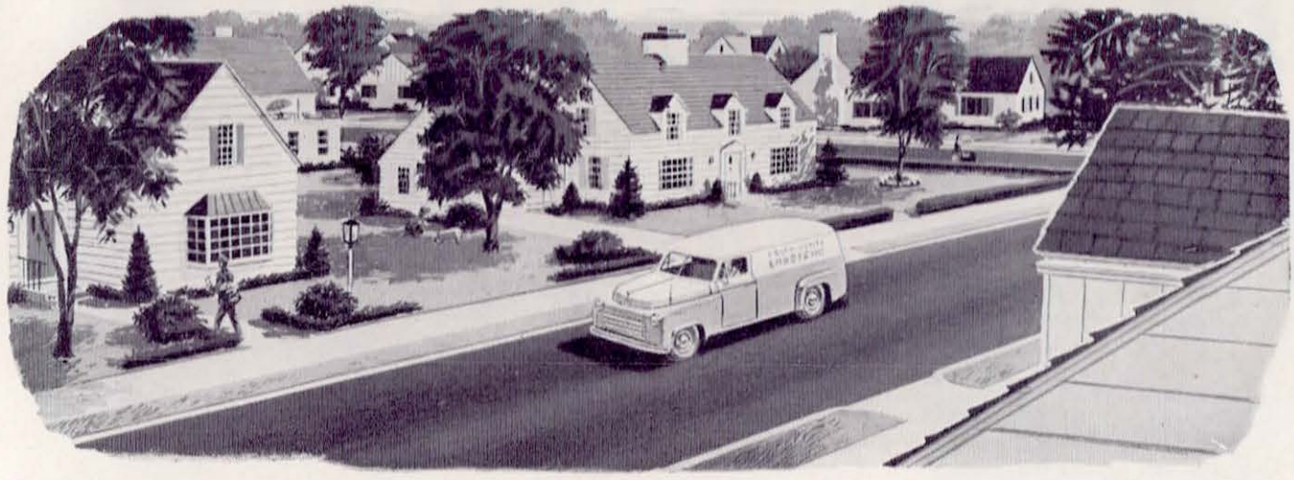
Solid Bearings

Right for Railroads

...in performance...in cost

MAGNUS METAL CORPORATION *Subsidiary of* **NATIONAL LEAD COMPANY**

A Tale of Two Roads



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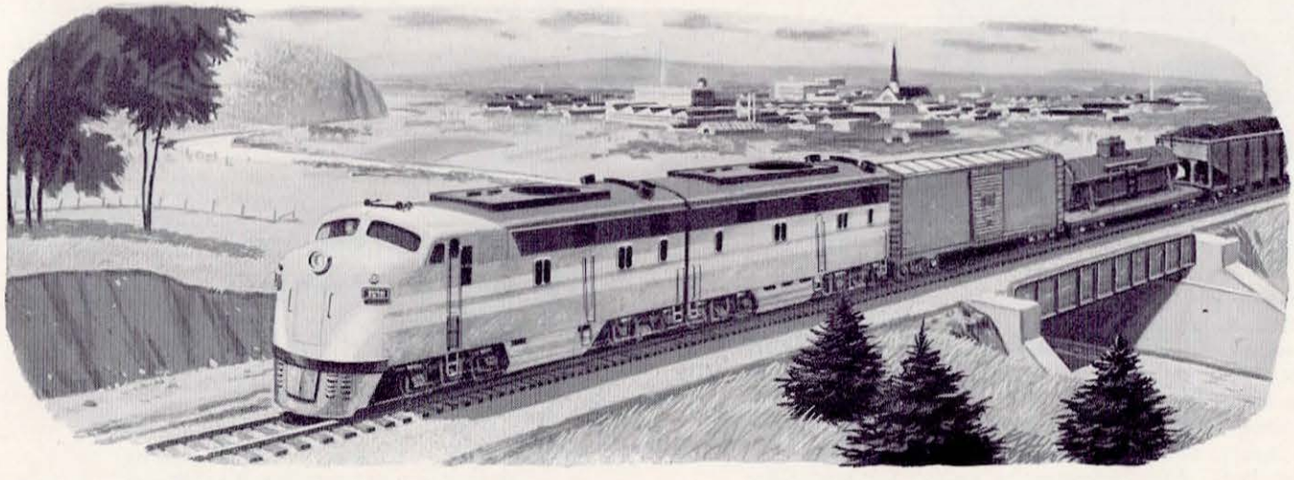

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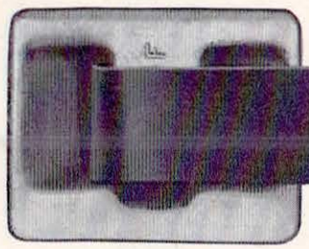
WASHINGTON 6, D. C.

You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.

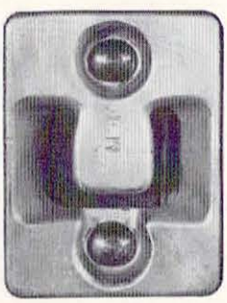
M-F

lading strap anchor



Here's real lading protection!

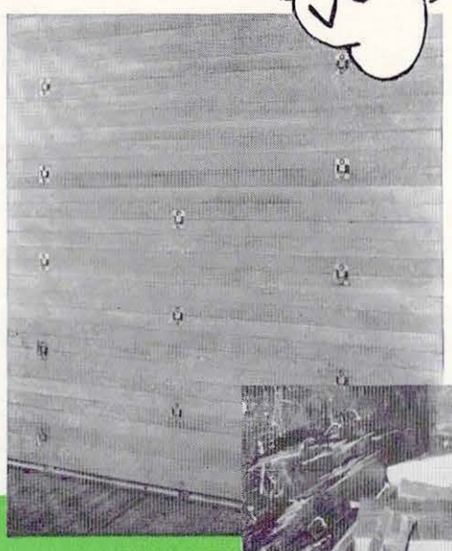
- ✓ CUT CLAIMS
- ✓ SATISFY SHIPPERS!
- ✓ PROTECT SIDE LINING!



Easily and quickly applied to new or existing cars, the new *M-F lading strap anchor* is the final solution to proper loading! It *will not* allow the strap to slip off; it accommodates all popular sizes of strapping and is *easily* applied by the most inexperienced employee. Quickly and easily removed *without tools*, this unique, self-cleaning anchor makes proper loading technique *almost automatic!*

Two types available. The blind fastener (above) and the weld type (below). Both are quickly *and easily* attached to the "Z" bar side post of new or old cars! *In your constant program to cut claims, you stress proper loading techniques and careful handling . . . but don't forget to start at the beginning—with proper equipment!*

PATENTS PENDING



The installation shown above would have *certainly* avoided the shameful waste shown at the right. Lading is high priced today—Ask your FCA! It's worth protecting—Ask your FCA!

an MF car is a Maintenance-Free car

MAC LEAN FOGG LOCK NUT CO.

5535 N. WOLCOTT AVE., CHICAGO 40, ILL. • *In Canada:* THE HOLDEN CO., LTD., MONTREAL

The Kansas City Short-Cut...Burlington's High-Speed Freight Route...NOW IN SERVICE

Sixteen million dollars and application of modern engineering skill have produced a new rail route between Chicago and Kansas City—a shorter, straighter, smoother route between these two great gateways.

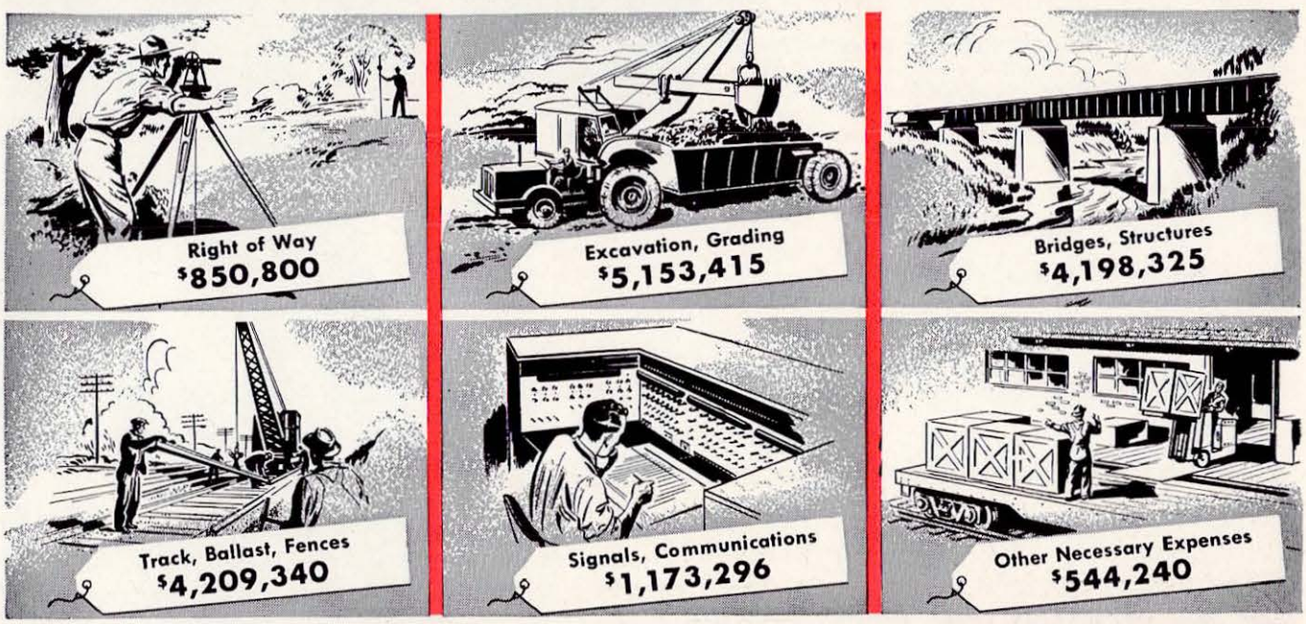
Over this new route, which includes a cut-off consisting of 49 miles of newly-constructed railroad, Burlington freight trains are now operating faster than ever between Chicago and Kansas City—providing dependable service second to none.

For the best freight service between Chicago and Kansas City, route "*via Burlington.*"

Shorter, smoother, straighter, the new Kansas City Short-Cut straightens the curves, levels the hills and cuts the mileage

Burlington's diesel-powered time freights provide fast, dependable service over the new route between Chicago and Kansas City—also make important connections at both gateways.

Here's How the Burlington Has Invested $16,129,416 in Finer, Faster Service between Chicago and Kansas City



BURLINGTON LINES

Everywhere West

Chicago, Burlington & Quincy Railroad
Colorado and Southern Railway
Fort Worth and Denver Railway

AN ESSENTIAL LINK IN TRANSCONTINENTAL TRANSPORTATION

Burlington Route

FREEDOM WHEELS KEEP ROLLING

Freedom Wheels are the most successful way yet found to combat thermal cracking under the severe braking conditions caused by today's high-speed operations. Over 500,000 now in service. Ask a user—try them yourself.

BALDWIN · BLH · LIMA-HAMILTON

STANDARD STEEL WORKS DIVISION
BURNHAM, PA.

BALDWIN - LIMA - HAMILTON

GENERAL OFFICES: PHILADELPHIA 42, PA.
OFFICES IN PRINCIPAL CITIES

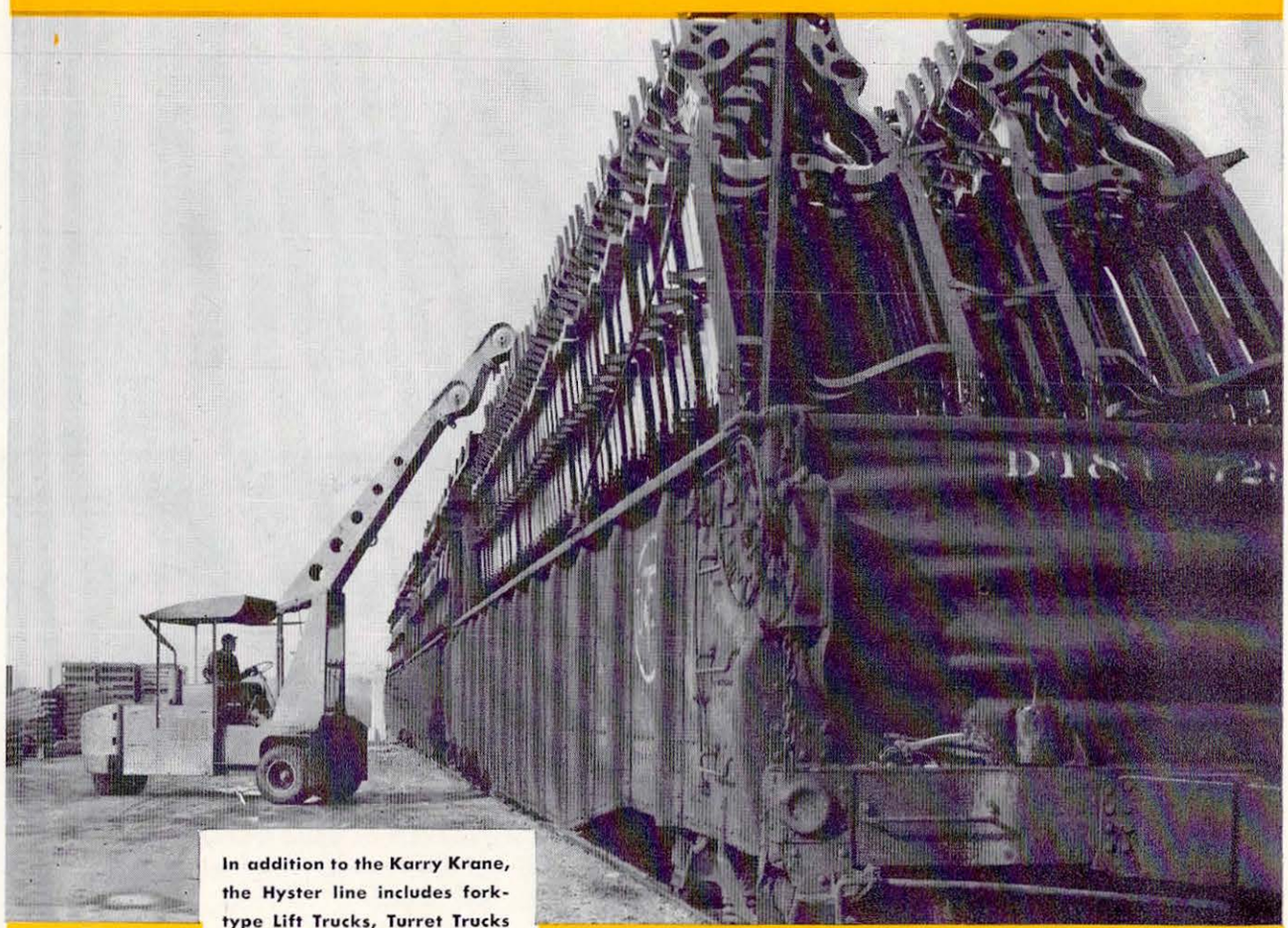
HYSTER®
KARRY KRANE®

"hustles" the loads for RAILROADS

The "hustling" KARRY KRANE can "hurry up" all kinds of hoisting and transporting jobs in the fast moving railroad business.

This self-propelled 5 ton capacity mobile crane has an adjustable boom, is mounted on pneumatic tires, powered by a heavy duty gasoline engine. Equally proficient on indoor or outdoor work. Rated HIGH in mobility and maneuverability. LOW in original cost and operating cost.

See your Hyster dealer for a demonstration. Write for literature.



In addition to the Karry Krane, the Hyster line includes fork-type Lift Trucks, Turret Trucks and Straddle Truck.® Capacity ranges from 1,000 to 30,000 lbs. Sold and serviced by Hyster dealers all over the world.

HYSTER COMPANY

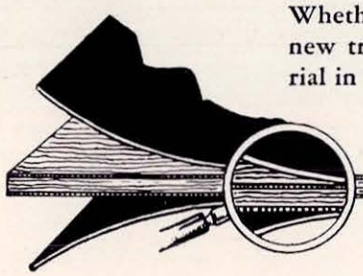
THREE FACTORIES

2932 N. E. CLACKAMAS STREET....PORTLAND 8, OREGON
1832 NORTH ADAMS STREET.....PEORIA 1, ILLINOIS
1032 MYERS STREET.....DANVILLE, ILLINOIS

Consider these practical advantages behind the smooth, mar-resistant surfaces of Met-L-Wood doors, panels and partitions in your rolling stock:

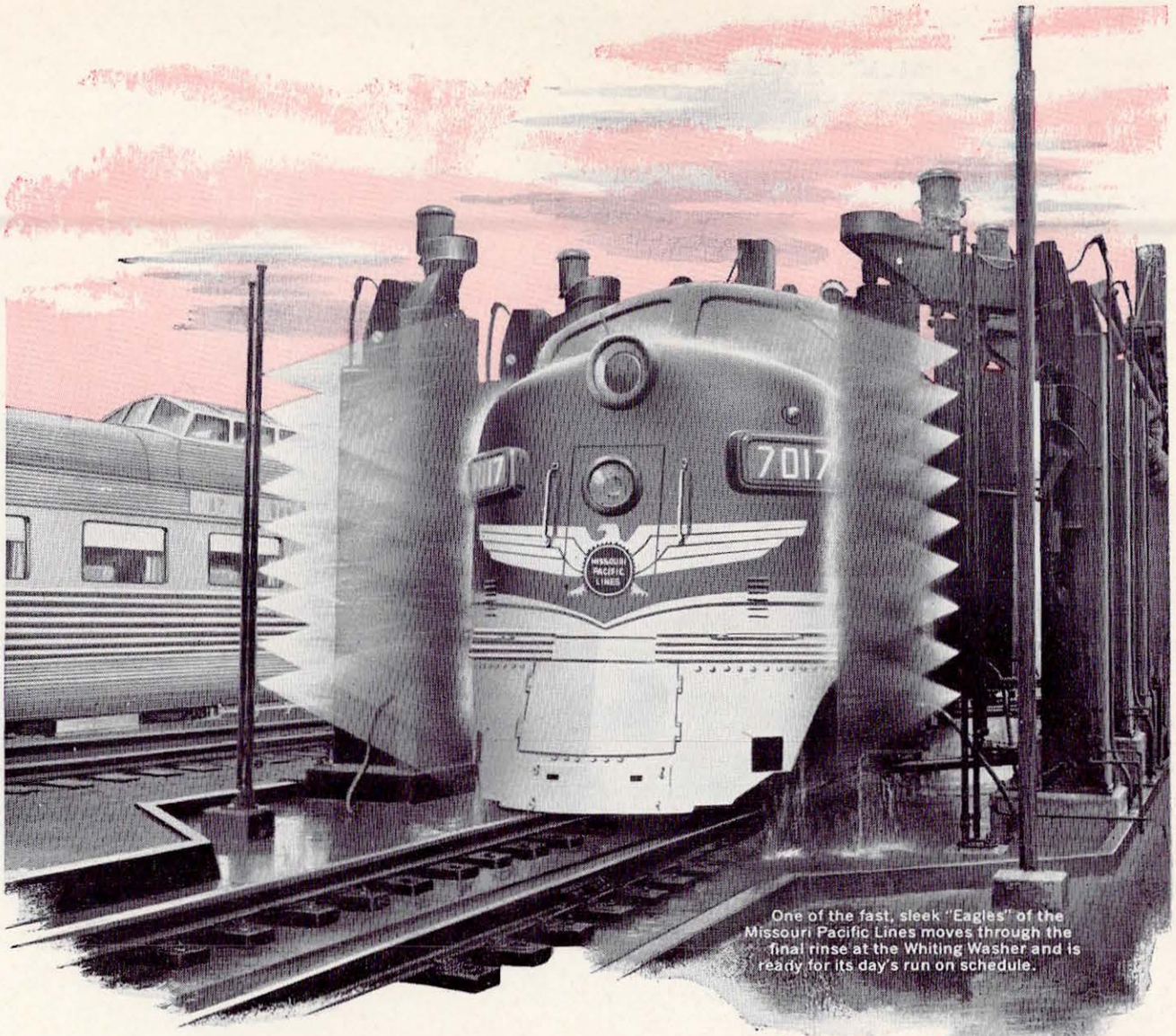
- **STRENGTH . . . 3/8" Met-L-Wood panel as stiff as 1/4" steel plate!**
- **LIGHT . . . as much as 73% less weight than standard steel construction**
- **SOUND-DEADENING**
- **INSULATING**
- **VIBRATION-DAMPING**
- **FIRE-RESISTING**

Whether your plans are for reconditioning old cars or building complete new trains, investigate the full possibilities of this versatile structural material in terms of design, efficiency, economy and beauty.



MET-L-WOOD CORPORATION

6755 West 65th Street, Chicago 38, Illinois



One of the fast, sleek "Eagles" of the Missouri Pacific Lines moves through the final rinse at the Whiting Washer and is ready for its day's run on schedule.

A CLEAN FACE FOR TODAY'S TRIP!

Before the start of every run, entire trains . . . from diesel locomotive to new, dome-type cars . . . are made shining bright with Whiting Train Washers. These machines wash cars in minutes, reduce cleaning time, help the railroads increase availability of rolling stock.

Washers and other items of Whiting transportation servicing equipment have long been vital factors in helping railroads speed overhaul and maintenance. Whiting is a name you'll also find on foundry cupolas, giant overhead cranes, metal-working machinery, the amazing Trackmobile and scores of other products . . . *all helping industry do more at lower cost!*

WHITING CORPORATION

15603 Lathrop Ave., Harvey, Illinois

OTHER WHITING RAILROAD PRODUCTS

Drop Tables

Electric Portable Jacks

Cross-Over Bridges

WHITING

TRANSPORTATION EQUIPMENT

Whiting Corporation also manufactures Materials Handling, Foundry and Aviation Equipment; Metal-Working Machinery and Swenson Equipment for the Chemical Process Industries

EMERGENCY SET-OFF BY ONE MAN

One man can quickly remove the Fairbanks-Morse Model 101 from the rails—even without a set-off.

Low lifting weight, balance, and guards between the wheels contribute to this vital safety advantage. Add features of immediate reverse, four-wheel brakes, grouped controls, full visibility—and you'll see why the Model 101 Motor Car has won such wide acclaim on railroads for safety.

For all maintenance, inspection and signaling service, look to the complete line of Fairbanks-Morse cars. You'll find the answer to safe, reliable transportation.

Fairbanks, Morse & Co., Chicago 5, Illinois.

FAIRBANKS-MORSE

a name worth remembering when you want the best

RAIL CARS • RAILROAD EQUIPMENT • PUMPS • SCALES • ELECTRICAL MACHINERY
DIESEL AND DUAL FUEL ENGINES • DIESEL LOCOMOTIVES • MAGNETOS

We've lifted a load from shippers' shoulders

Not knowing the whereabouts of an important carload is a burden to any shipper. But it's a burden that can now be dropped! Through B&O's *Automatic Records*—a feature of Sentinel Service, both shippers and receivers immediately hear when the schedule of a Sentinel car is interrupted—and again of its reforwarding.

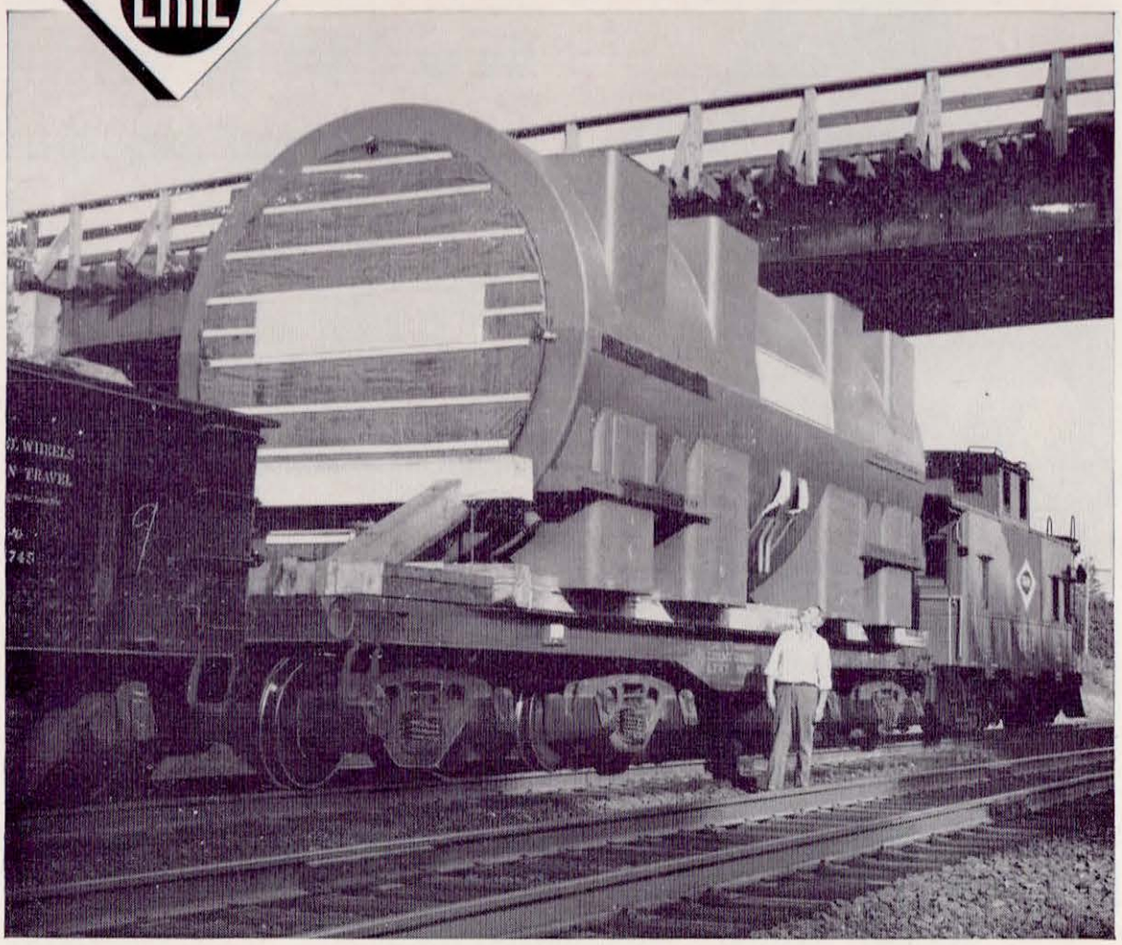
The siding-to-siding dependability of Sentinel Service, plus this *Automatic Records* feature, offers shippers a valuable mind-easing service. *Off-line shippers*, too, can benefit. *Ask our man!*

LINKING 13 GREAT STATES WITH THE NATION ®

BALTIMORE & OHIO RAILROAD

Constantly *doing things* —better!

. . . Mark of PROGRESS in Railroading



Weighty problem with the right answer

● The man beside the world's largest generator gives you some idea of its size but we'll be surprised if you come close to guessing its tremendous weight.

Actually, this huge machine to supply electric power to consumers and industry on the East Coast was one of the heaviest single shipments ever made by railroad. Gross weight was almost *half a million pounds.* You can see why such a movement needs special care.

It was routed over the Erie, famed for its extra high and wide clearances and its heavy-duty roadbed. Last year the Erie spent $23,217,733 to keep its 2242 miles of railroad between New York and Chicago in top condition. That's an average of over $10,000 a mile for this highway of steel—paid for by the railroad, without subsidy from the taxpayer.

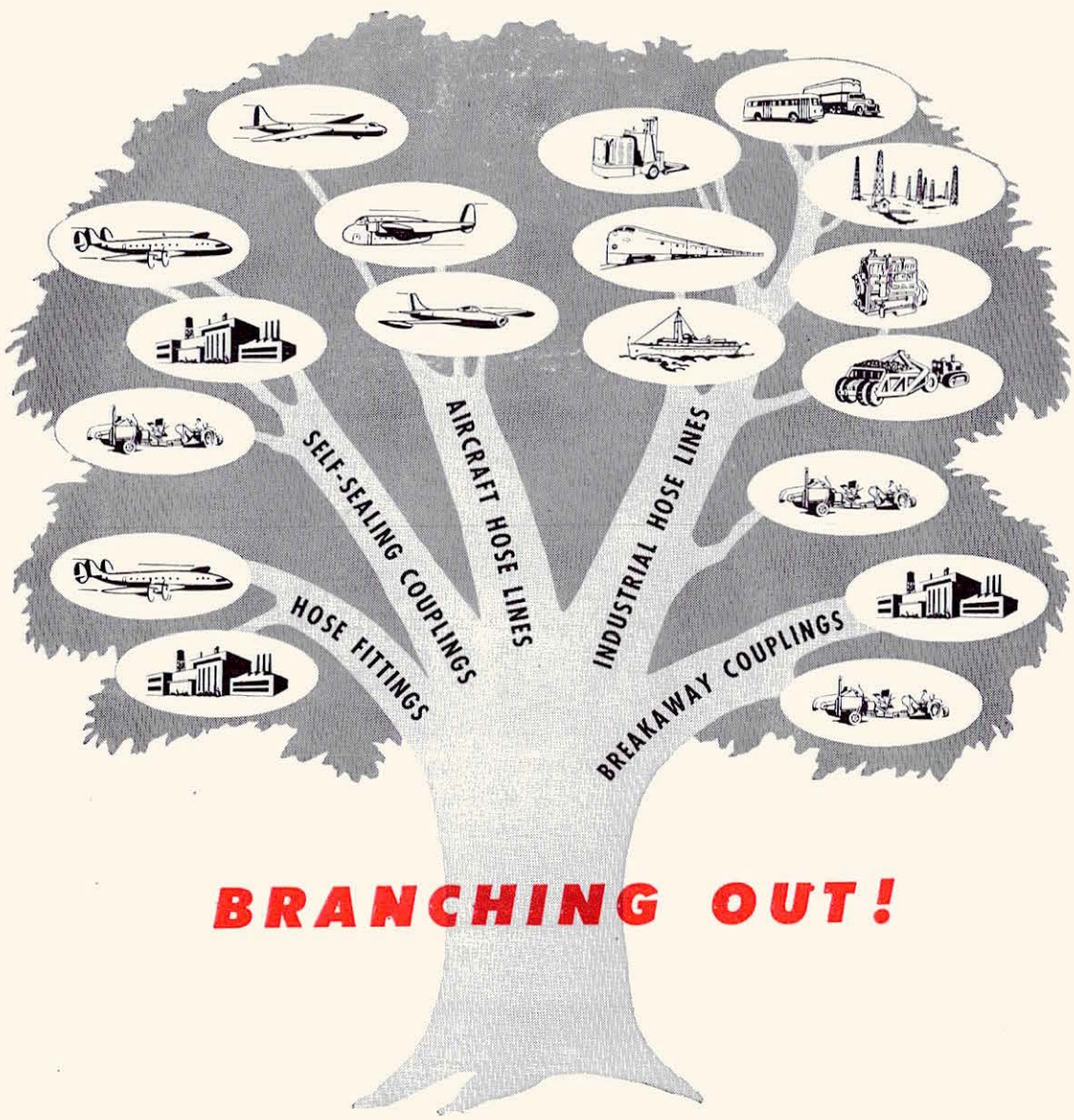
Here is another example of Erie's progressive railroading—the constant aim to provide the best in safe, dependable transportation, and one more reason why so many shippers say "Route it Erie!"

Erie Railroad

Serving the Heart of Industrial America

Aeroquip

REG TRADE MARK



BRANCHING OUT!

The seed was planted only 12 years ago but the idea grew and grew. Now Aeroquip products serve dozens of major industries with a multitude of applications.

Originally, Aeroquip produced Flexible Hose Lines and Self-Sealing Couplings for military aircraft only. Successive developments, which actually set the pace for military standards, led to Aeroquip's present position of dominance in the fields of commercial as well as military aircraft.

The development of allied industrial products presented vast new opportunities. The "Aeroquip Idea"—bulk hose that can be cut to length and detachable, reusable fittings which can be easily assembled by hand—flourished among manufacturers and users of all types of industrial equipment. Even the farmer is counted among Aeroquip's customers.

Today, Aeroquip produces and sells more hose lines for industrial and aircraft applications than any other manufacturer.

AEROQUIP CORPORATION, JACKSON, MICHIGAN

SALES OFFICES: BURBANK, CALIF. • DAYTON, OHIO • HAGERSTOWN, MD. • HIGH POINT, N. C. • MIAMI SPRINGS, FLA. MINNEAPOLIS, MINN. • PORTLAND, ORE. • WICHITA, KAN. • TORONTO, CANADA

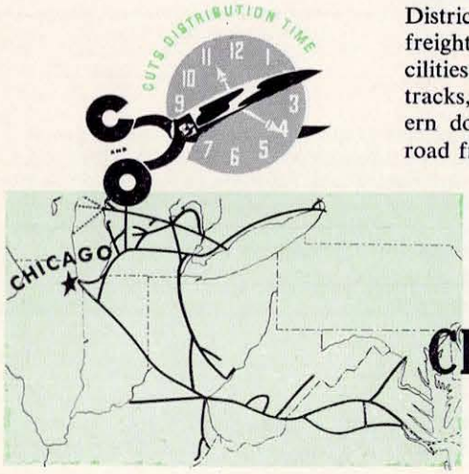
AEROQUIP PRODUCTS ARE FULLY PROTECTED BY PATENTS IN U.S.A. AND ABROAD

You SAVE a HALF to a FULL DAY when you ship the *Rockwell* way!

The new Rockwell Terminal in Chicago is another great chapter in the "C&O cut-distribution-time" story. Actually, Rockwell is a "two-in-one" yard, because it combines the Rockwell Street Yard and the Calumet-Stony Island Yard into one unit handling Chesapeake District and Pere Marquette District freight operations. These expanded facilities now provide additional yard tracks, a new terminal building, a modern dormitory and restaurant for the road freight crews of both districts.

The new Rockwell Terminal is six miles closer to the stockyard area and eight miles nearer to Clearing than the Calumet-Stony Island Yard. And it will enable Chesapeake District cars to and from western lines to move through Chicago from 12 to 24 hours faster. It will also make it possible for Chesapeake District deliveries of perishables and other freight from the south to arrive at Chicago earlier than ever before.

Yes, the expanded terminal at Rockwell is another case in point of C&O's determination to cut distribution time for its shippers. Next time you ship . . . why not cut distribution time the Rockwell way and save a half to a full day.



CHESAPEAKE and OHIO RAILWAY

3 ways to cut office costs by improved filing methods

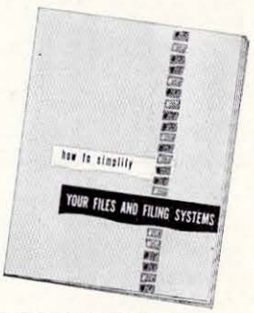
1. The right filing system speeds filing and finding
Saves 25% or more on clerical time for operating your files. Saves executive time that's wasted in long waits for material from files. Saves costly filing errors. Let us help you choose the right system for speed and accuracy on *each* file... the right methods for sorting, handling, cross-indexing, controlling and protecting your records.

2. The right filing cabinet saves effort and motion
Choose your files for labor-saving ease of operation, long-lasting efficiency, and maximum return per dollar. Also, choose for maximum return per sq. ft. of floor area—from our complete line of compact, space-saving, five-drawer file units; double-duty counter or desk file units; and correct drawer size for each type of record.

3. The right filing service saves upsets in routines
Let our file analysts give you an expert *outside viewpoint* on your filing methods. Have each file analyzed for possible savings. Get help in classifying records, installing new systems, training file clerks, and standardizing file procedures. Also, get regular maintenance service to keep file equipment at top operating efficiency.

Good filing is good management. *You'll find useful ideas by the dozen in the new Remington Rand manual of practical filing procedures. Just one idea may save you $100 to $1000. Coupon brings you this valuable 40-page booklet without obligation.*

Send for free Manual



Management Controls Reference Library
Room 1501 315 Fourth Ave., New York 10

Please send me your filing manual LBV-396.

Name_____ Title_____

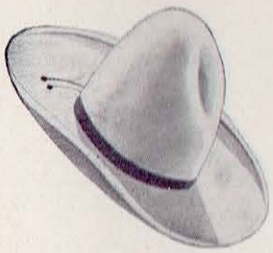
Firm_____

Address_____

City_____ Zone____ State____

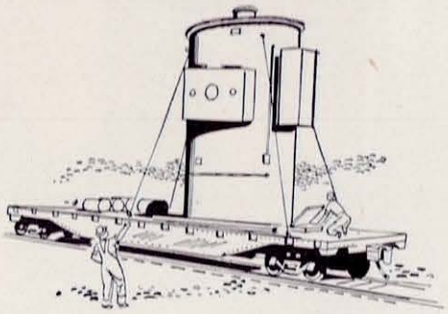
For all your filing needs:
one source, one responsibility

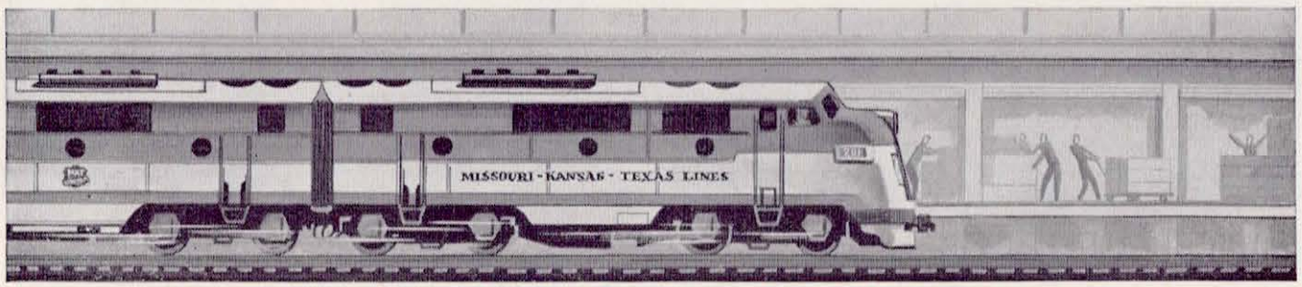
Remington Rand INC.



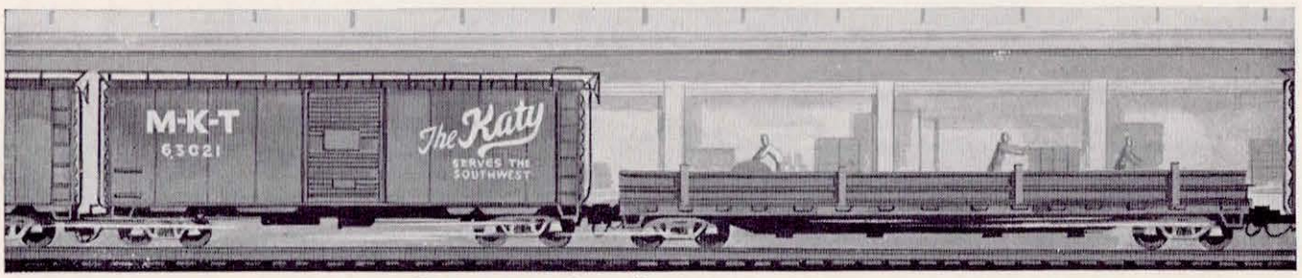
Who Makes Sure Your Southwest Shipment Gets There SAFE?

People. Careful *Katy* people, trained and skilled in all the latest freight handling methods. Specialists, equipped with every up-to-date device to load, ship, unload and process your goods safely, efficiently, on time. Whether you're shipping fragile light bulbs or tremendous transformers, remember all the people whose care and attention make Katy freight service something "extra." Let the friendly, Southwestern hat remind you to ship Katy, Southwest!

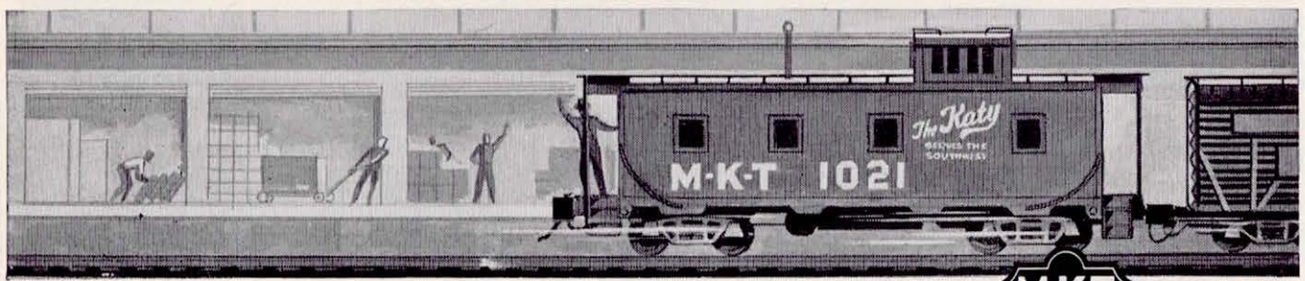




the diesel crew . . .



the terminal crew . . .



the train crew . . .

12a

READ

"The Katy Railroad, and the Last Frontier" —Exciting, authentic railroad saga of the Southwest—at your favorite book store.

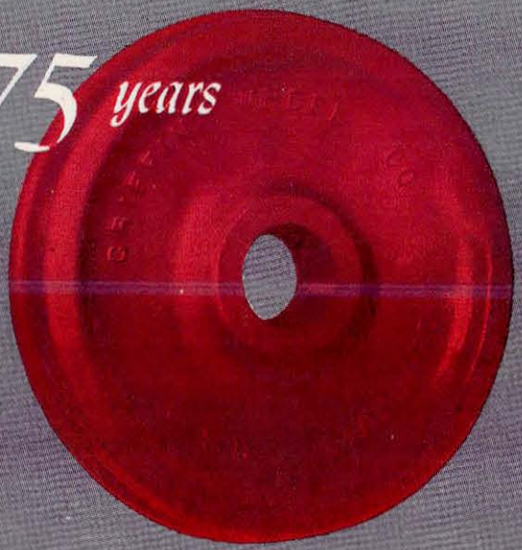
Your local Katy Representative will be glad to help you with your shipping problems—tell you more about Katy's modern freight service and how you'll benefit by shipping and traveling *Katy*, Southwest.

M-K-T
KATY RAILROAD
MISSOURI-KANSAS-TEXAS

THE KATY RAILROAD

NATURAL ROUTE SOUTHWEST

for 75 years



THE LARGEST SUPPLIER OF RAILROAD CAR WHEELS

Griffin

GRIFFIN WHEEL COMPANY

410 N. MICHIGAN AVE., CHICAGO 11, ILLINOIS

TACOMA • LOS ANGELES • SALT LAKE CITY • DENVER • ST. PAUL • KANSAS CITY
COUNCIL BLUFFS • CHICAGO • DETROIT • CINCINNATI • BOSTON

Member AACW ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

Listen to the RAILROAD HOUR: NBC Network, Monday Nights

UNARCO

WOVENSTONE® LACE-ON PIPE INSULATION

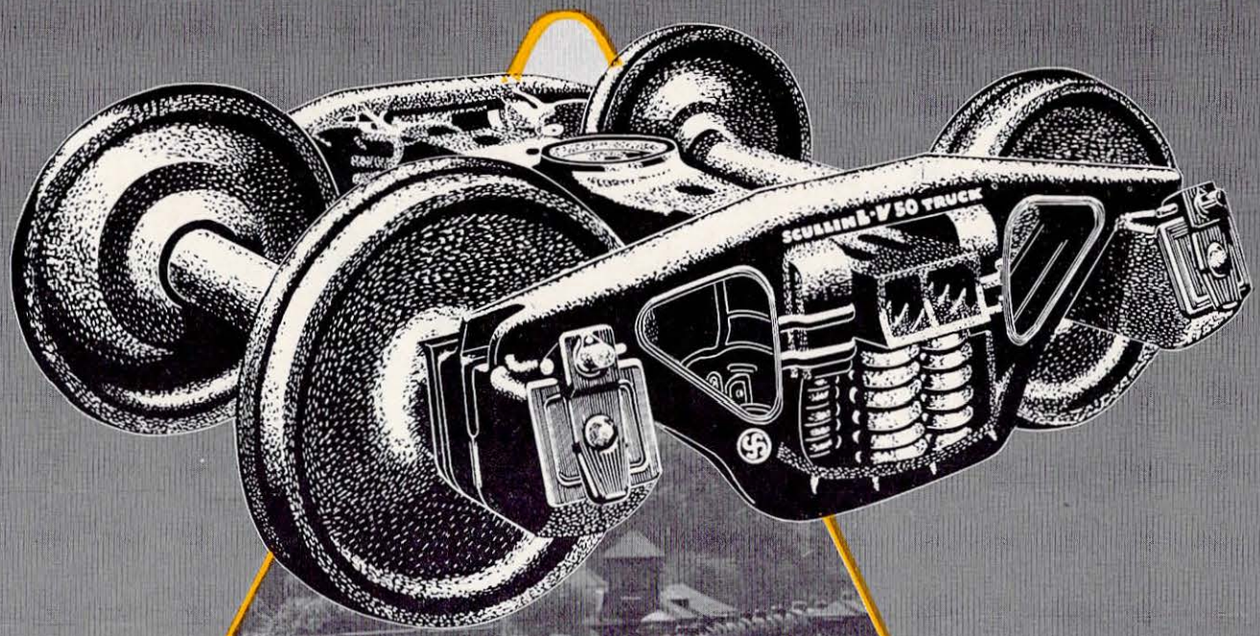
- Quickly applied—as easy as lacing up a boot.
- Remains snug and firm against the pipe.
- Won't loosen or shake down.
- Can be removed for pipe inspection and reapplied without loss of original efficiency.
- Lasts for 10 to 12 years and retains insulation qualities for its lifetime.
- Weatherproof, waterproof, fireproof, impervious to the elements.

The comfort of your passengers is dependent upon the efficiency of the steam pipe insulation that runs the length of the train. That's why railroads have standardized on Unarco Wovenstone as the efficient, economical way to protect steam and hot water from the ravages of weather. This added passenger comfort is a definite public relations factor. Fuel savings and the long-life economy of Wovenstone are important operating factors. Wovenstone, tailor-made for railroad insulation, has proved its advantages in many years of service.

UNARCO

UNION ASBESTOS & RUBBER COMPANY

332 SOUTH MICHIGAN AVENUE • CHICAGO 4, ILLINOIS



STEEL CASTINGS MANUFACTURER

NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

LATERAL VERTICAL 50 CUSHIONED MOTION

SCULLIN L-V TRUCKS

THE SMOOTHEST TRAFFIC-BUILDERS
BETWEEN LCL AND YOUR RAILS

Photo Courtesy
Baltimore & Ohio Railroad

SCULLIN STEEL CO.

SAINT LOUIS 10, MISSOURI

IN THE LAST 5 YEARS

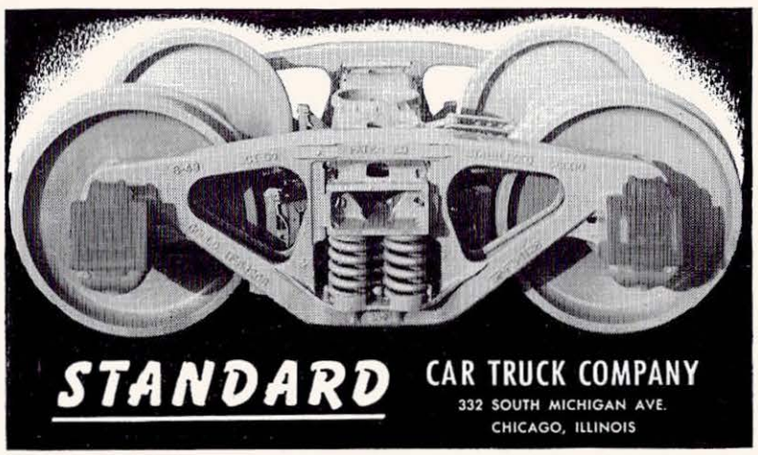
Almost 200,000 Freight Cars have been equipped with Barber Stabilized Trucks. This, together with over 100,000 previously equipped, makes a total of more than 300,000 car sets of Barber Stabilized Trucks purchased by American Railroads.

The efficiency of these Trucks in checking excessive truck-spring action under light loads, medium loads and heavy loads has been continuously improved by service tests, and by taking full advantage of new metallurgy and heat-treatment developments.

Many **BARBER Stabilized Trucks** have run a **quarter million miles with little or no repairs** but Testing, Research and Development are still being carried on to increase the life of Barber Trucks and to still further improve the protection which they give to all types of equipment and lading.

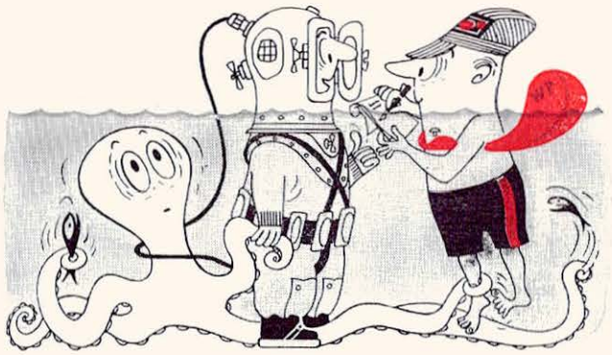
X-61

EACH FREIGHT CAR SHOWN REPRESENTS 500 CARS— 300,000 CARS TOTAL

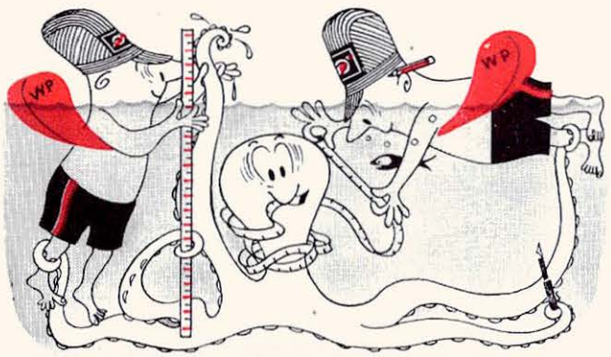


STANDARD CAR TRUCK COMPANY
332 SOUTH MICHIGAN AVE.
CHICAGO, ILLINOIS

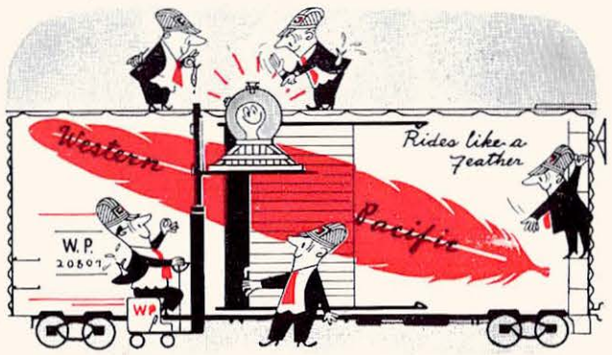
Nothing is too much trouble!*



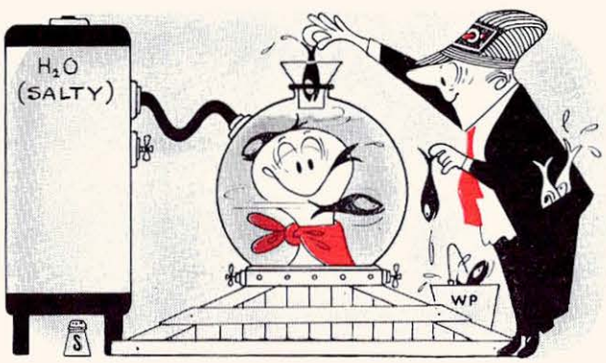
1. Shippers with particularly difficult freight handling problems will do well to turn to Western Pacific for help in finding a solution.



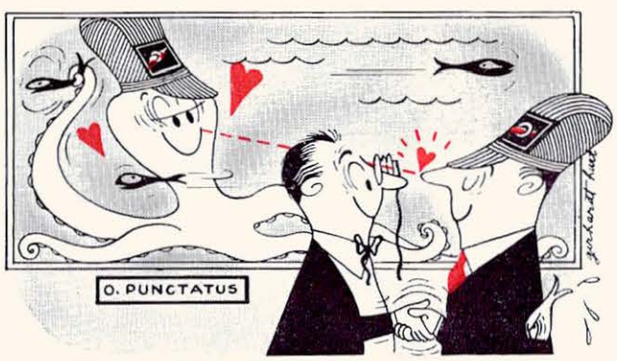
2. Our transportation experts are always ready at a moment's notice for an on-the-spot consultation with a baffled shipper.



3. This same personal interest extends to the handling and safeguarding of shipments in transit.



4. Western Pacific believes that its customers have every right to expect SUPER SERVICE when they route their shipments "via WP."



5. In fact, nothing is too much trouble if it's a question of saving a Western Pacific shipper time, money or headaches.

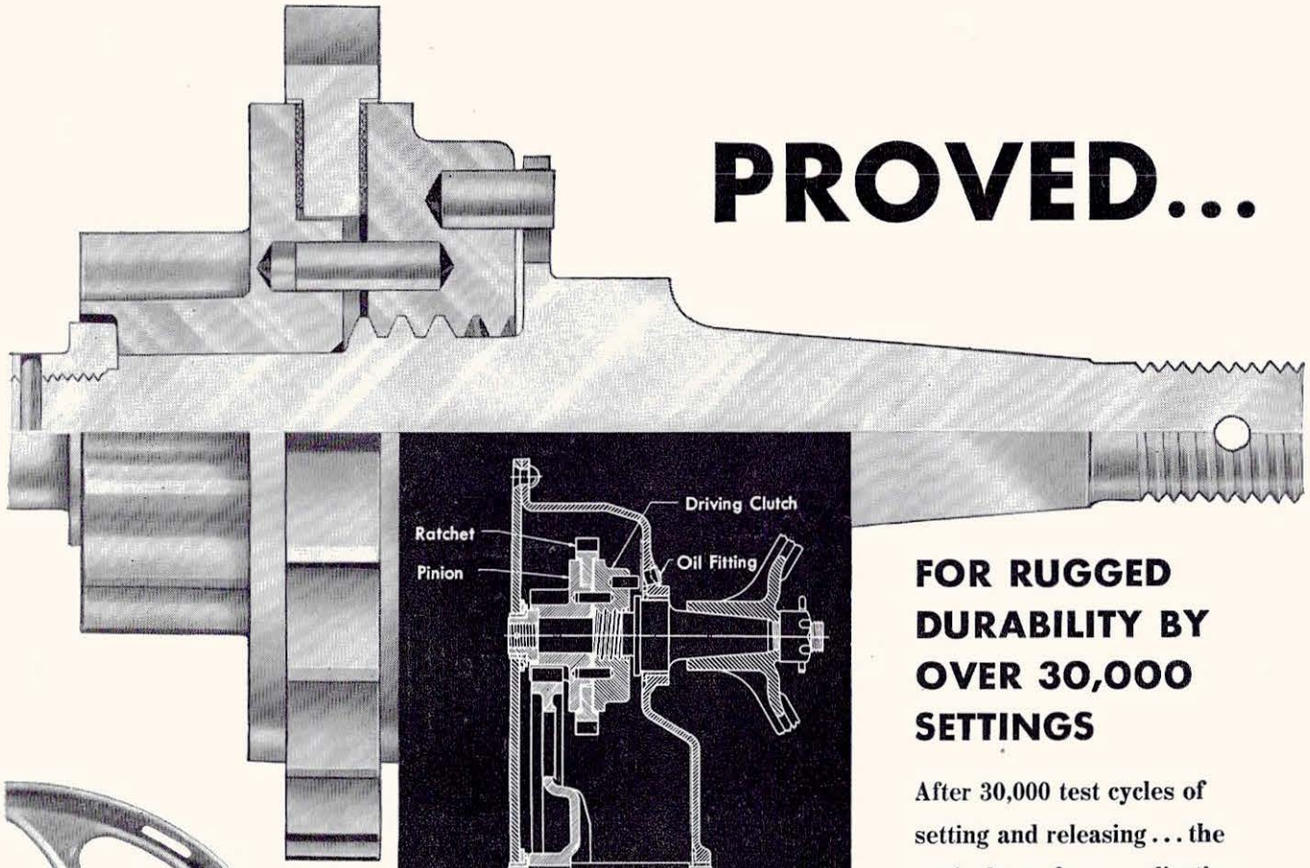
For SUPER SERVICE all along the line, ship via Western Pacific!

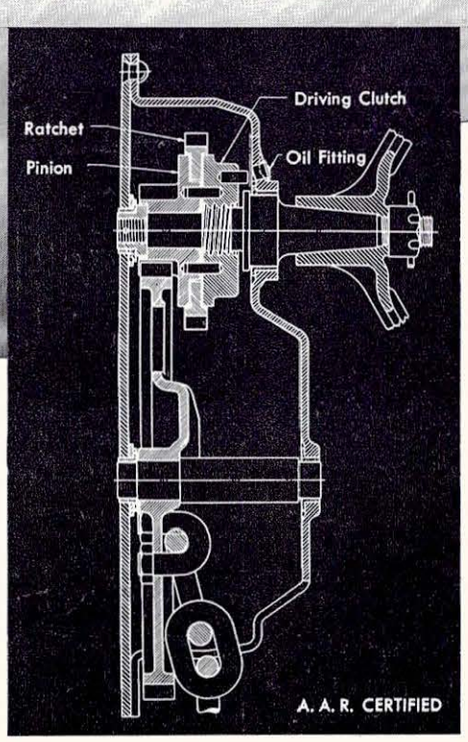
ROUTE OF THE VISTA-DOME CALIFORNIA ZEPHYR

WESTERN PACIFIC

General Offices: 526 Mission Street, San Francisco 5, California

PROVED...





FOR RUGGED DURABILITY BY OVER 30,000 SETTINGS

After 30,000 test cycles of setting and releasing... the equivalent of one application daily for 85 years... this efficient Equipco Non-Spin Wheel Brake Clutch shows no appreciable wear. Smooth operation is unaffected by either moisture or grease.

Equipco

A. A. R. CERTIFIED

NON-SPIN WHEEL HAND BRAKE

Nothing has been left to guesswork. Every component part of the Equipco Non-Spin Wheel Hand Brake has been laboratory-tested for strength... the brake has been tested to destruction and has proved its ability to outlast any freight car.

You get a brake easily operated with one hand only... quick response ... proved durability—a "no-creep" brake which will hold a car firmly anchored until purposely released. It's really SAFE.

We'd rather *prove* the safety features of the Equipco brake than talk about them. We'll be glad to demonstrate its many advantages—in actual service tests—any time, any place you wish.

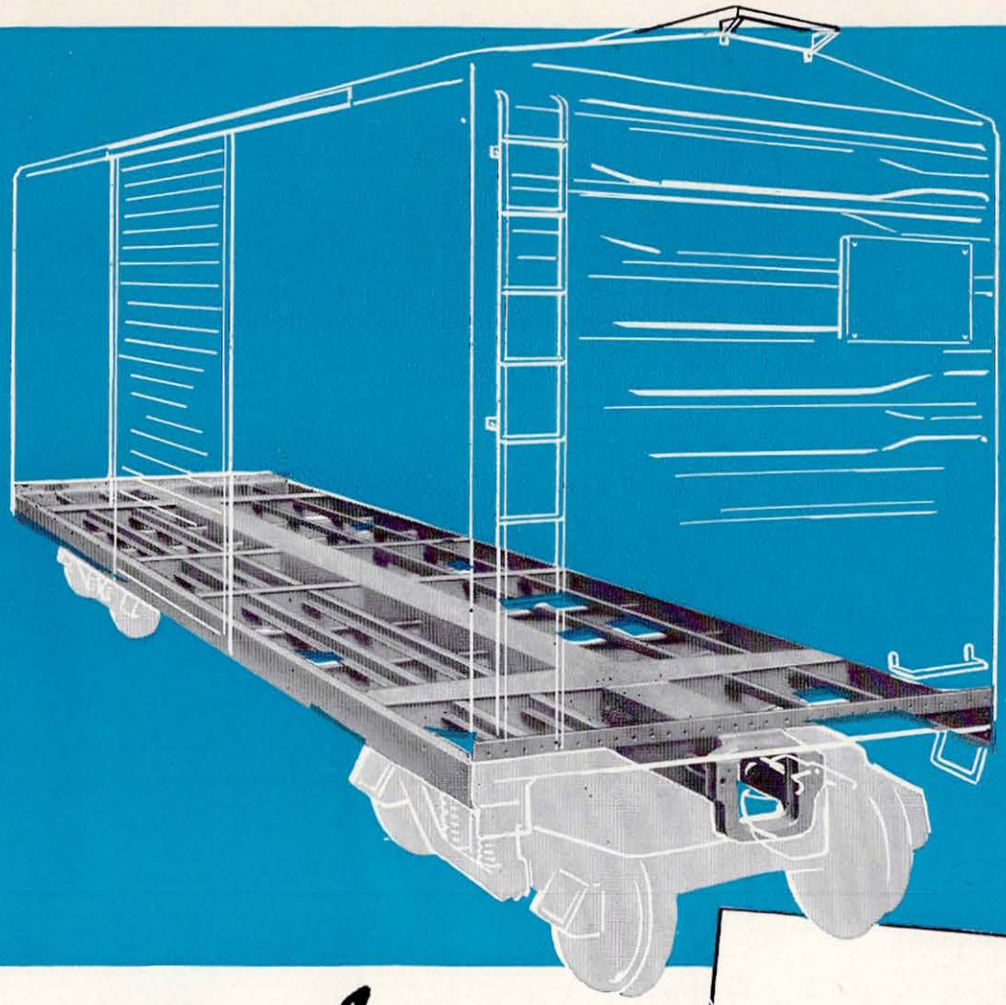
UNARCO

UNION ASBESTOS & RUBBER COMPANY

Equipco Hand Brake Division

332 SOUTH MICHIGAN AVENUE • CHICAGO 4, ILLINOIS

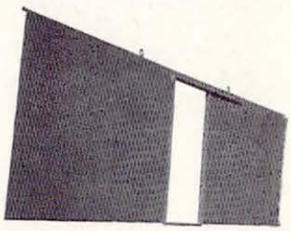
There's a new precision in Freight Car Construction



THE International UNDERFRAME a solid Foundation for International SIDES AND DOORS

A much sturdier underframe, incorporating a maximum utilization of material section with minimum weight. All down-hand welded, AAR requirements equalled or surpassed in every feature. Delivered, upon specification, complete with couplers, draft gears, air brake equipment brackets, piping, lever carriers, etc.

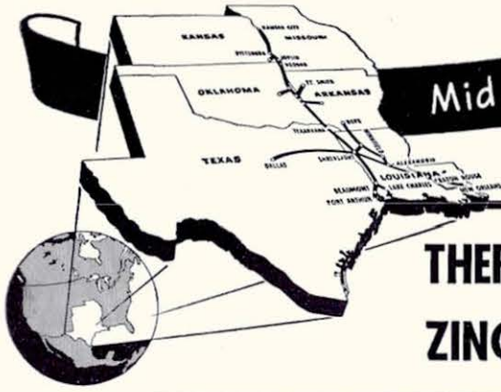
International's Bulk-Lading Side Door. Requires **no** inside grain door • • • and has an access door for loading, inspection and sampling. ***Positive retainment on the car structure.***



International's ALL-WELDED BOX-CAR SIDES. Delivered **ready to assemble,** to car owners who assemble their own cars. ***Maximum welded attachment to the side plate and side sill upper elements.***

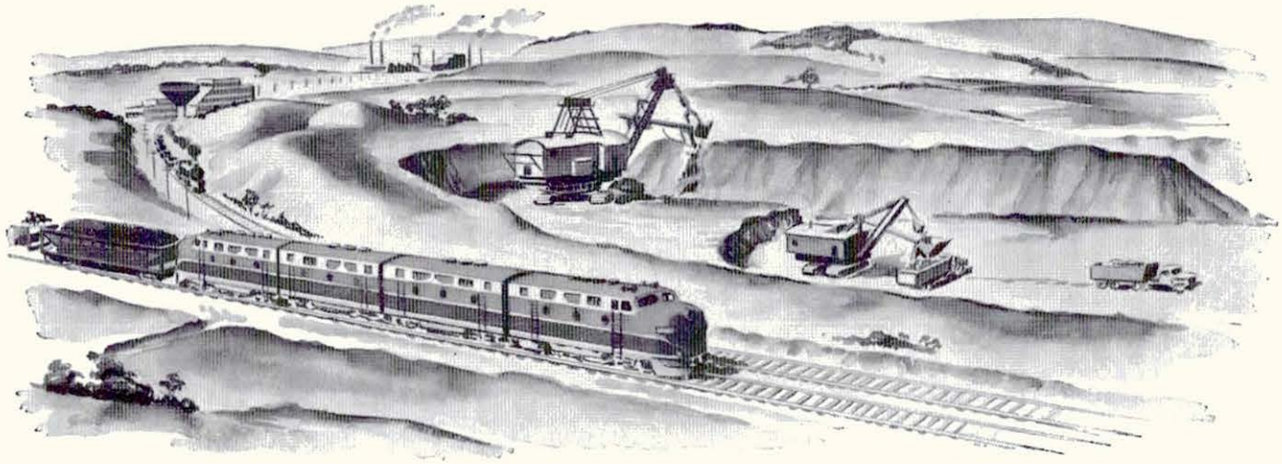
INTERNATIONAL STEEL CO. **RAILWAY DIVISION**

Evansville 7, Indiana



Mid-America Stands Out in Mining Production

THERE'S GOLD IN MID-AMERICA'S COAL— ZINC—LEAD—SULPHUR—SALT AND IRON



Along Kansas City Southern Lines the earth is filled with buried treasure, hidden there by a jealous Mother Nature.

Those who uncover the riches of this six-state area represent nearly one-fourth of all the people in the nation engaged in mining . . . and the income from mining in this area totals nearly *one-third* of the national income from mining pay rolls and profits.

But there are other riches here. Besides coal, iron, sulphur, lead, zinc, salt and other valuable minerals, you will find a place of gigantic industrial potential—a place that offers a variety of fuels . . . plentiful water sources . . . expanding markets . . . a choice of climate—from temperate to semi-tropical—and everything for healthful, enjoyable living.

Too, this rich area offers producers all the advantages of a central location and the best in transportation —including the speedy, efficient all-diesel services of Kansas City Southern Lines!

KCS LINES

Working Partners
With Business, Industry
and Agriculture
In Mid-America

J. W. SCOTT
Vice President—Traffic

A. N. REECE
Asst. to President—Development

KANSAS CITY 6, MO.

KANSAS CITY SOUTHERN *Lines*

It's the high 'G's*

that damage lading

In recent loaded car impact tests of both Waughmat Twin Cushions and various friction draft gears, it was found that the coupler forces on the Twin Cushion equipped car were 630,000 lbs. for impacts at 7.64 mph (car loaded 169,000 lbs.) as compared with 825,000 lbs. for friction gears at 7.53 mph or 25% less for the Twin Cushion equipped car.

Important as this figure is, far more interesting is the relative *rate of force rise* per 100th second. For Twin Cushions it was 215,000 lbs.; for friction gears it was 1,090,000 lbs. or 80% higher signifying correspondingly greater shock.

The reason for the difference lies in the unique design of Waughmat Twin Cushions. Twin Cushions 'take the bite out of impact' because they never go solid. Twin Cushions, too, take much of the bite out of lading damage costs for they reduce both longitudinal accelerations and the component vertical accelerations which contribute so greatly to lading damage.

To dampen accelerations and violent changes in accelerations, to protect both cars and lading, equip new or existing cars with WAUGHMAT TWIN CUSHIONS.

* "G", the unit of change in velocity which is equal to the pull of gravity or 32.2 feet per second per second.

for 'G' control . . . Specify

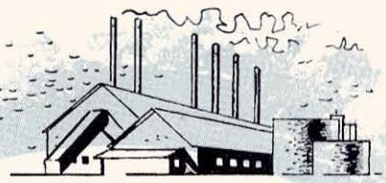
WAUGHMAT

Twin Cushions

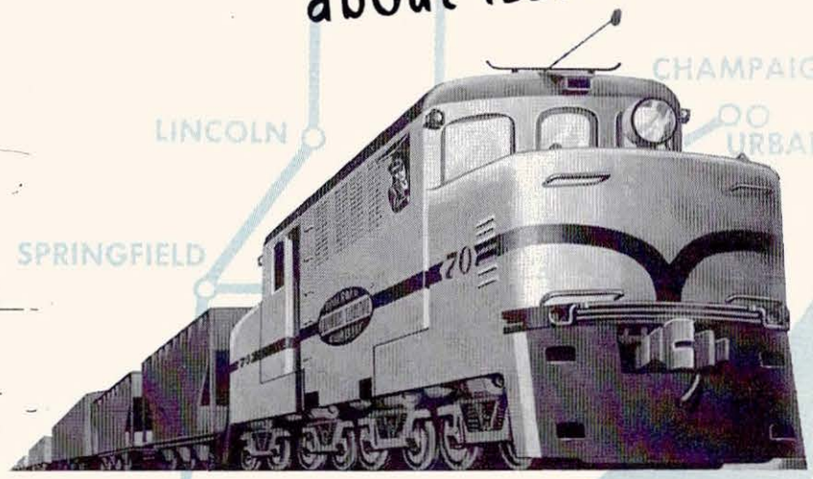
TRADE MARK REGISTERED

UNCONDITIONALLY APPROVED BY THE A.A.R.

WAUGH EQUIPMENT COMPANY, New York · Chicago · St. Louis · Canadian Waugh Equipment Company: Montreal



what every shipper should know— about ILLINOIS TERMINAL



Our 456 miles of diesel and electric-powered railroad making connections with all railroads to and from all points, provides direct haul fast freight service to, from and through Central and Eastern Illinois and the industrial zones of St. Louis and the east side of the Mississippi River.

We serve directly and exclusively, more than 250 industries along our own rails, and in excess of 3,500 others through reciprocal switching arrangements.

If your shipping business includes our territory, investigate ILLINOIS TERMINAL service. You will be glad tomorrow that you routed your freight shipments via ILLINOIS TERMINAL today.

Representatives in 21 key cities throughout the United States. Get in touch with our nearest representative or write, wire or telephone—

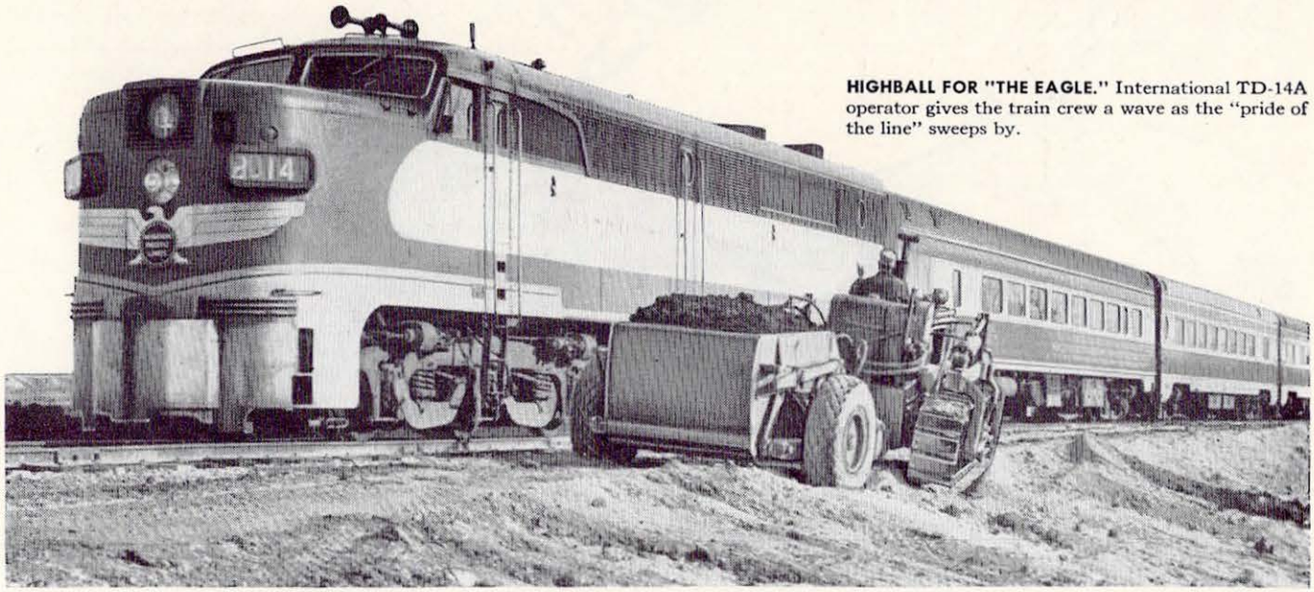
Vice President—Traffic

ILLINOIS TERMINAL RAILROAD COMPANY
710 North Twelfth Boulevard
St. Louis 1, Missouri
Telephone CEntral 5300

RAILROAD ILLINOIS TERMINAL COMPANY

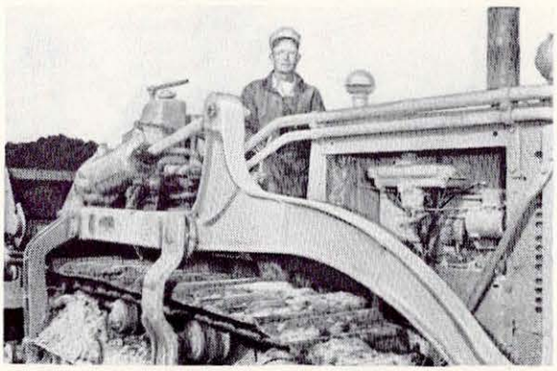
Illinois Terminal

Highballing on the MP

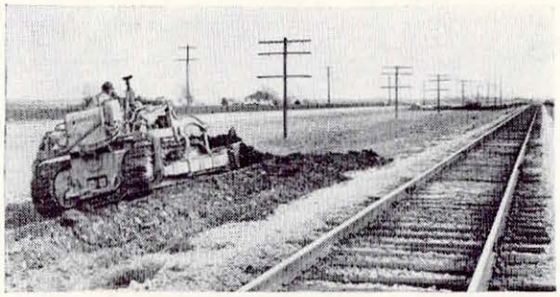


HIGHBALL FOR "THE EAGLE." International TD-14A operator gives the train crew a wave as the "pride of the line" sweeps by.

International power helps the Missouri Pacific deliver a smoother ride for passengers and freight in MP's continuous program of line improvements and year-round maintenance



"EASY RIDING TRACTOR," says operator C. J. Miller.



PROGRAM OF LINE IMPROVEMENTS along tracks of the International Great Northern, MP's Texas subsidiary, call for improved embankments, replacement of 90-pound rail with 115-pound rail.

All through the southwest, the progressive Missouri Pacific sets the pace for modern high speed railroad operations.

This calls for a continuous program of line improvements and year-round maintenance, to combine speed with a smooth ride for passengers and freight.

That's where International power comes in. And the MP not only gets faster maintenance at lower cost—they get employee satisfaction, too. Listen:

"I've been a dozer operator for the MP for eight years," says C. J. Miller. *"I like the way this TD-14A handles—whipping around a telephone pole, or holding a steady line just inches away from the tracks. In this work, you have to be able to look where you're going and go where you're looking. With the TD-14A, you've really got it made!"*

Why don't you find out what International power can do for you? See your International Industrial Distributor for details.

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS

INTERNATIONAL

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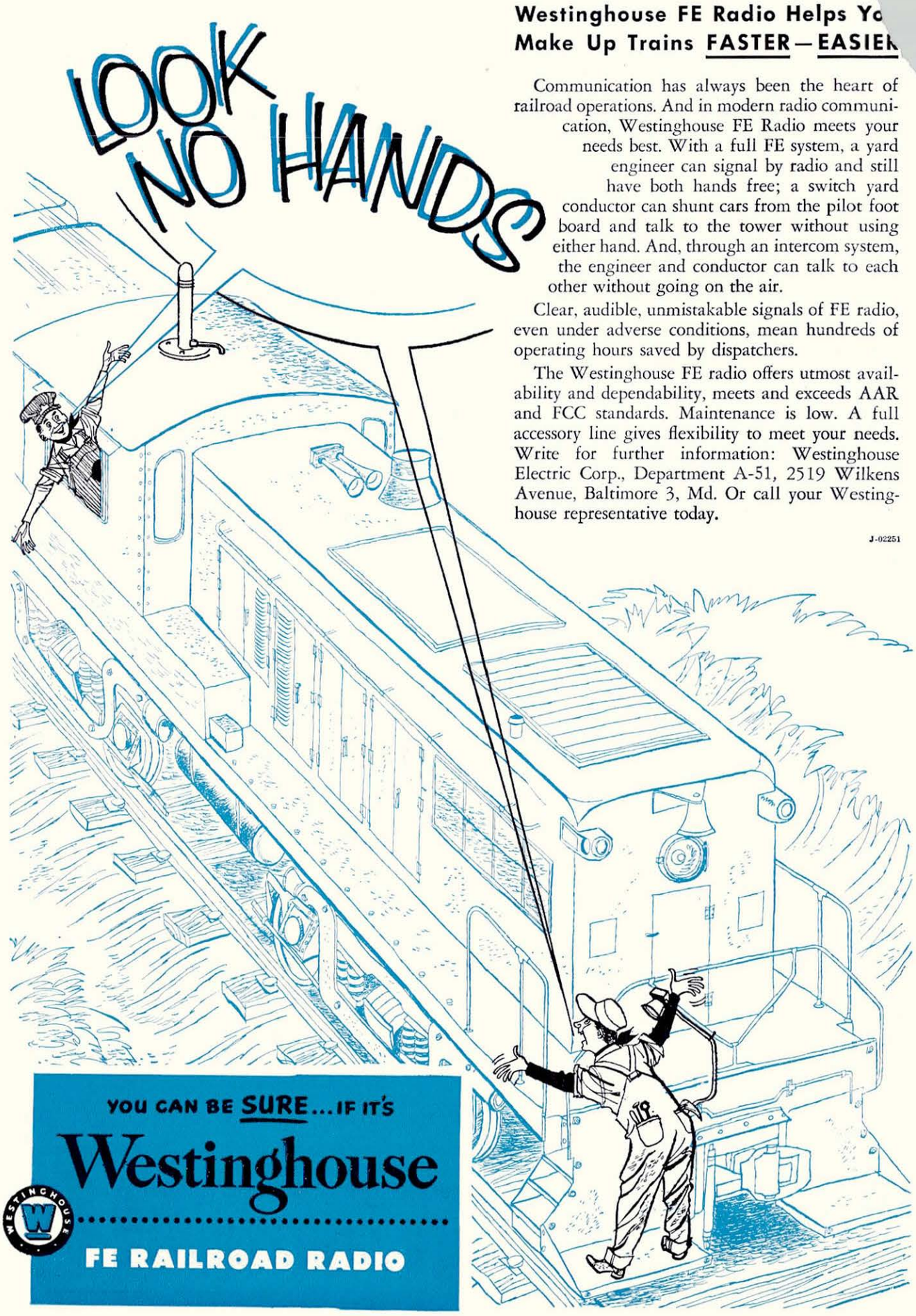
POWER THAT PAYS



Westinghouse FE Radio Helps Yo Make Up Trains FASTER—EASIEI

Communication has always been the heart of railroad operations. And in modern radio communication, Westinghouse FE Radio meets your needs best. With a full FE system, a yard engineer can signal by radio and still have both hands free; a switch yard conductor can shunt cars from the pilot foot board and talk to the tower without using either hand. And, through an intercom system, the engineer and conductor can talk to each other without going on the air.

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The Westinghouse FE radio offers utmost availability and dependability, meets and exceeds AAR and FCC standards. Maintenance is low. A full accessory line gives flexibility to meet your needs. Write for further information: Westinghouse Electric Corp., Department A-51, 2519 Wilkens Avenue, Baltimore 3, Md. Or call your Westinghouse representative today.

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YOU CAN BE SURE... IF IT'S

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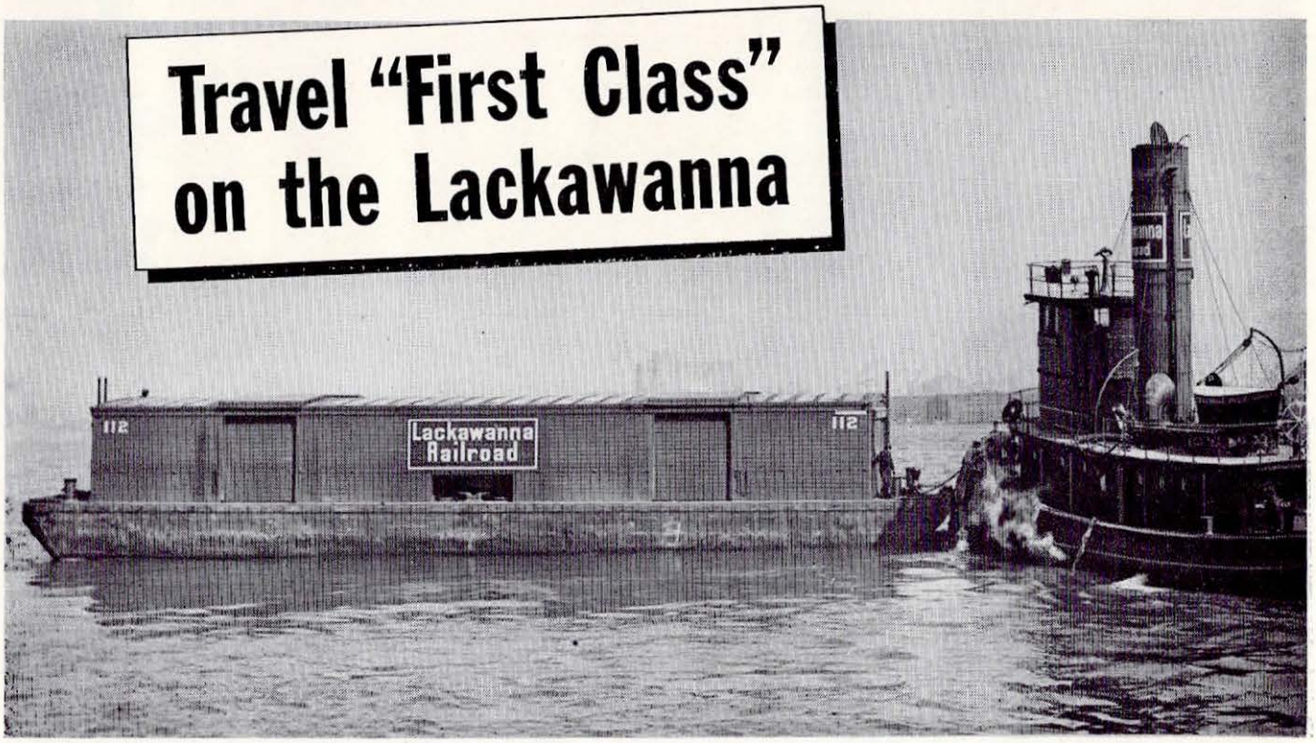
REFRIGERATORS FOR EXPORT

Travel "First Class" on the Lackawanna



One of Lackawanna's modern tugboats, towing a lighter loaded with refrigerators to the pier.

Lackawanna's specially designed metal plates on fork-lift pusher trucks permit quick pick-up and unloading of crated refrigerators.

Refrigerators bound for overseas shipment get there faster and in better condition when shipped via Lackawanna — *the shortest route between the Great Lakes and New York.*

To prevent load shifts and assure maximum protection while in transit, each crate is secured by steel straps and rigidly positioned by heavy wood bracing. At Lackawanna's Hoboken Terminal, where the handling of all freight *is completely mechanized*, trained personnel operating the most advanced type of fork-lift pusher trucks can transfer a carload of as many as 85 refrigerators, weighing 24,000 pounds — in less than an hour.

Geared to handle all types of overseas shipments, Lackawanna's strategically-located terminals permit fast service both to nearby piers and to New York, Brooklyn, and Long Island receiving stations. Its fine modern fleet of tugs, barges, lighters and car floats is one of the largest in existence.

Whether it's packaged goods, bulk freight, heavy machinery, or perishables—modern Lackawanna efficiency adds up to preferred handling for your shipments. That's why so many of the world's greatest shippers specify Lackawanna — to or through New York.

Lackawanna Railroad

SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE OF PHOEBE SNOW

AMCRECO provides

service and treating facilities unexcelled in the wood preserving industry

• 24 PLANTS

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In an industry where so much depends on service, Amcreco offers facilities second to none. But even more important, these facilities are backed by wood preserving experience and know-how that results from nearly half-a-century's intensive study and research into wood preserving methods and problems.

Your requirements for treated materials can best be filled by an organization with the facilities and experience to provide you with efficient service and proved treatment and whose plants are strategically located for prompt domestic or export shipment. East of the Rockies, that means Amcreco. We hope to have the opportunity to quote on your needs.

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GENERAL SALES OFFICE—CHICAGO, ILLINOIS
18 FIELD SALES OFFICES TO SERVE YOU

MO-PAC

offers shippers...

EAGLE

merchandise service

√ FAST √ CONVENIENT

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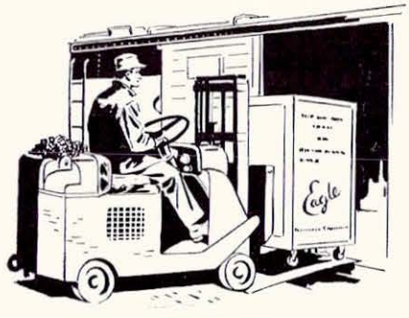


For LCL freight that can't wait . . . make sure! Ship via *Eagle Merchandise Service* . . . Mo-Pac's efficient and exclusive service for the merchandise shipper, that assures special and careful handling from pick-up to point of delivery.

Investigate our increasingly popular and efficient "Eagle Speedbox." Another Mo-Pac *first*, the "Speedbox" means significant savings to the merchandise shipper.

Call your Missouri Pacific freight representative for full details about the time and moneysaving features of fast, dependable *Eagle Merchandise Service.*

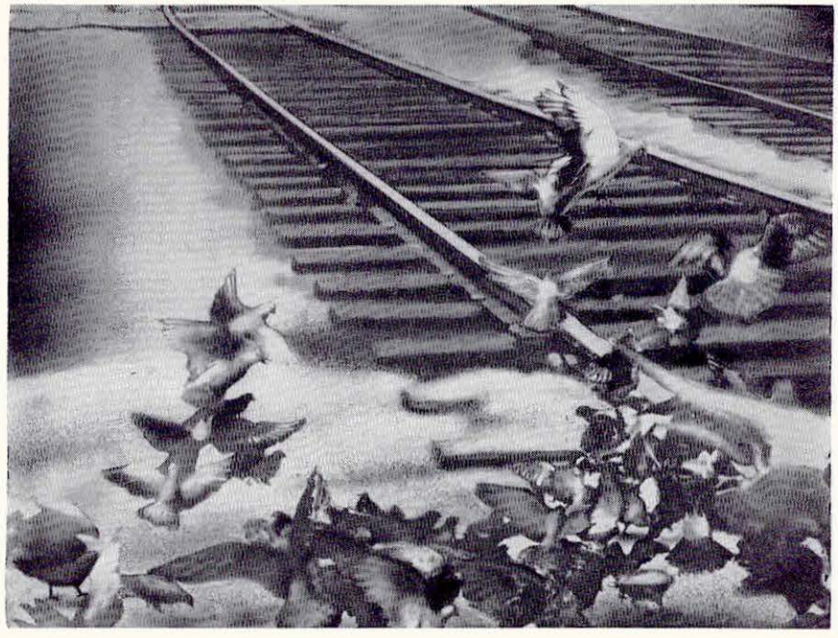
MISSOURI PACIFIC LINES

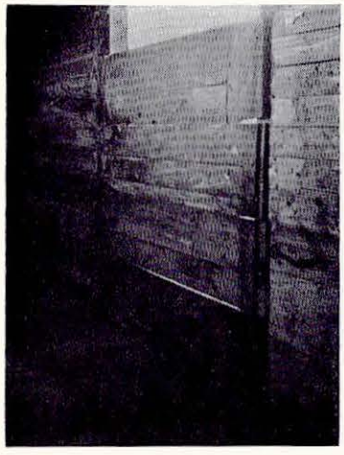
1851 1952

IN OUR SECOND CENTURY OF SERVICE

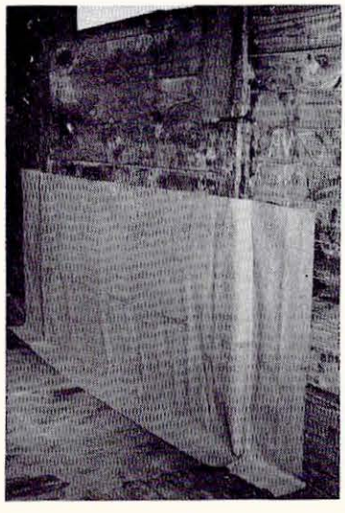
ROUTE OF THE EAGLES

ARE YOU FEEDING PIGEONS . . .
OR TRANSPORTING GRAIN ?





Note the wide gaps between doors which are completely sealed against leakage and weather by the LIPP sealer.



Showing the ease of installation and simple application of the wood grain door with the LIPP sealer.

Even inferior grain doors provide more than adequate protection when lined with the LIPP sealer.

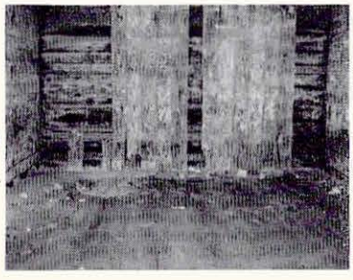
Grain waste does double damage because it represents food for the world as well as dollars to the Railroads. This is unnecessary and can be easily avoided. Recently a test was made at Chicago in which a wooden box car with wooden grain doors purposely spaced from ¾" to 1-⅞" apart was loaded with grain. This car was prepared under the supervision of a Weighing and Inspection Bureau representative.

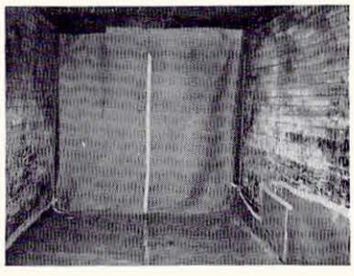
LIPP Sealer and Lining were used to upgrade this car, and even with the bad condition of the car and grain doors, the car reached its destination in an Eastern city without any loss of grain.

LIPP SAVES GRAIN

Ask for facts on *bulk* grain shipped in "rough freight" cars! Perfect for bagged lading; the liner shifts *with* the load!

Before





After

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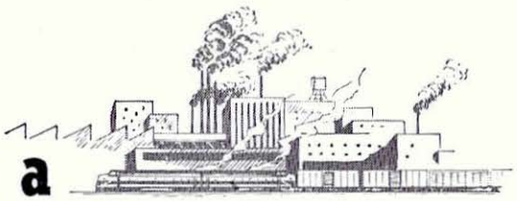
THE MIDWEST

Great...in Resources

Great...as a Consuming Market



Great...as a Location for Industry

Four states served by the Minneapolis & St. Louis Railway comprise the heart of the Great Midwest, America's foremost agricultural producer and a vast consuming market.

On the solid foundation of wealth from fertile farms, the Midwest has built a mighty industry, which each year grows greater in scope and diversity.

Important among the many resources that make the Midwest an ideal location for industries is efficient transportation of materials and products, supplied by a network of railroads, of which a vital link is

The Minneapolis & St. Louis Railway

Minnesota, South Dakota, Iowa and Illinois boast unsurpassed resources of soil, climate, fuel, power, water, skilled labor and raw materials. In these states, the M. & St. L. offers advantageous sites for manufacturing and distributing plants, in thriving, progressive communities on its lines.

For these, as it has in more than 80 years for Midwest industry, trade and agriculture, the M. & St. L. will provide

Fast Dependable Freight Service

The MINNEAPOLIS & ST. LOUIS Railway

INDUSTRIAL DEVELOPMENT DEPARTMENT

111 East Franklin Avenue, Minneapolis 4, Minnesota

THE MINNEAPOLIS & ST. LOUIS RAILWAY CO. — THE PEORIA GATEWAY

...SO WHEN I GRIPE ABOUT MISSING THANKSGIVING DINNER AT HOME, HE SAYS: "BE THANKFUL YOU'RE FIREMAN ON THE QUANAH 'FLASH', THE FASTEST FREIGHT IN TEXAS... BE THANKFUL THE 'FLASH'...
...NEVER STOPS LONG ENOUGH FOR YOU TO GET LONESOME... ALSO, YOU MIGHT HAD TO CARVE A TOUGH TURKEY, WHICH IS HARDER WORK THAN "FIRING" A DIESEL
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TURKEY..... $1.35
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QUANAH Special.... 41.
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NO CREDIT

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Your patronage is constantly solicited and always appreciated!

Along the Quanah

Loading dock and cotton compress on QA&P tracks at Quanah, Texas. Industries along the Quanah enjoy prompt and expert handling of their shipping, with careful attention to special needs and requirements. The same fast, safe service expedites Quanah-routed freight via the "Transcontinental Cut-off". There are no large-terminal delays on the Quanah. Quanah's quick!

QUANAH, ACME & PACIFIC RAILWAY COMPANY
QUANAH, TEXAS
W. L. Richardson, Executive Vice-President

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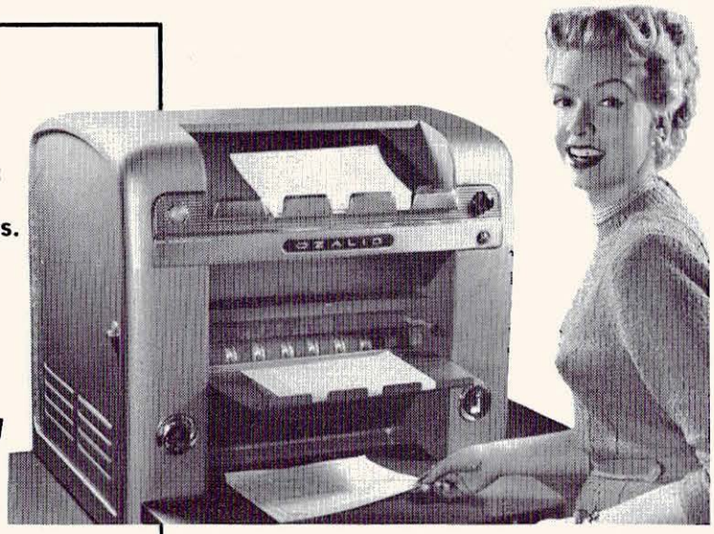

Profit by These Examples of B&O's Experience!

Costs from 9 to 83% of Former Methods. "Recently we made a cost analysis on Ozalid," writes a B&O official. "A study of eleven representative jobs showed that the cost on Ozalid ranged from 9 to 83% of the cost by former methods. New applications are being found daily. Work formerly sent outside the company for duplication is now diverted to this process."

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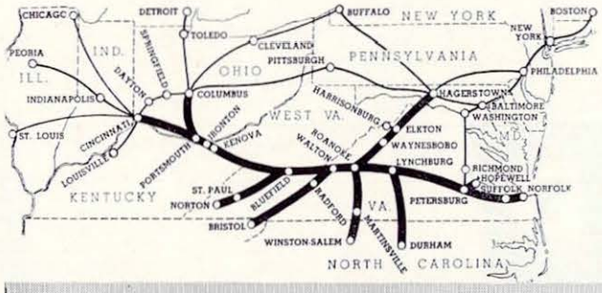
HE MADE HIS NAME A SYNONYM FOR *Excellence*

Antonio Stradivari (1644-1737) was still a pupil of Nicolas Amati in Italy when he began making and putting his label on his beautiful, superior-toned violins, which now are regarded as the finest in the world. The secret of his varnish, soft in texture and shading from orange to red, has never been discovered — but his methods set a standard for subsequent times, and his name became synonymous with excellence.

Now in its 114th year and one of the major Class I railroads of America, the Norfolk and Western has followed a 3-point program to produce rail service *synonymous with excellence* —

- Use of the most modern and efficient operating methods;
- Use of the most modern and efficient equipment;
- Constant research, and close attention to every detail by experienced, highly-skilled employees who have the will and desire to do the job *right.*

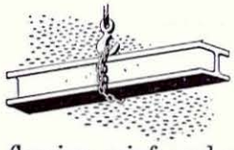


Since World War II, the Norfolk and Western has spent and authorized $179,792,000 for new equipment and improvements for a better railroad plant. Five times it has been awarded the Harriman Memorial Gold Medal for the best overall safety record among large U. S. railroads, and three times it has won the National Safety Council award for the best employee safety record. These things mean a brand of railway service *synonymous with excellence.* The nation over, business men and industrial traffic managers have learned to *depend upon* the service they get when they ship "Via N&W."

Call on your N&W freight representative the next time you want help with a shipping problem. Through long experience, he speaks your language, and his service is yours for the asking. N&W freight representatives are located in principal U. S. cities, as near as your telephone. Call on them.

The DEPENDABLE Norfolk and Western Railway

Anything catch your eye?



This new Soo Line car is of all-steel construction with wood lining on sides and ends. It has nailable steel flooring, reinforced with oak, for solid bracing of your freight and solid support of your loading equipment. Your freight rides on the firmest flooring possible—hardwood inside steel. The roof is coated with insulating material that practically eliminates moisture condensation. Steel plus hardwood plus insulation means safer shipping for you via Soo.

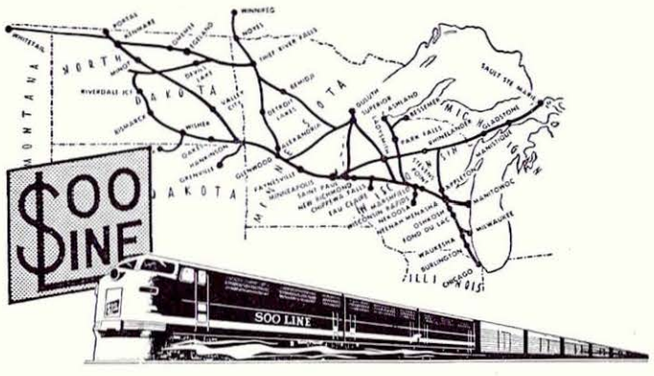
Those are the latest type trucks. Their construction assures dependable service, correct, positive braking and simpler maintenance; reducing the time this car might be out of service for repairs.

That's 6 *plus* features! 6 features that help insure safety and quick delivery of your shipments. These *extras* make this ordinary looking car do a specially good job for you. Smart shippers look for these features. And smart shippers ship Soo Line!

About the huge SOO LINE painted on the car . . . that's our way of telling the world we're in the transportation business. The less obvious details—the *plus* features on this car and on all new cars rolling out of Soo Line shops—tell *you* that we *know* our business and can help you in yours.

You can have Soo Line's freight know-how tailored to the freight you have to move. For details to fit your situation call our man today.

SHIP SOO IF YOU SHIP
TO OR THRU
THE UPPER MIDWEST



Why Burn Down Your House for Roast Pig?

IN ancient China, men ate meat raw. But one day, while Ho-ti the swineherd gathered mast for his hogs, his stupid son Bo-bo, playing with fire, burned down their straw hut. Bo-bo sniffed the odor of burnt pig. He touched one to see if it was still alive, scorched his fingers, put them in his mouth and was amazed at the delicious taste. Father came home and caught his son devouring a pig. Ho-ti tried one, too, found it intoxicatingly sweet and satisfying.

Thereafter, neighbors observed feverish building of new straw huts at Ho-ti's, followed always by conflagrations. The secret leaked and fires became widespread. In a few weeks even his Lordship's town house was on fire. Finally, straw for hut building disappeared from the market and young pigs could not be had for love or money. At last, after many generations, a wise man arose who said that a pig could be roasted without burning down an entire house.

Thousands of years later, we Americans feast deliriously on "roast pig." Accompanying our delights are fires of inflation, which can destroy our values just as certainly as the roasting of Ho-ti's pigs consumed his earthly possessions. But surely we need not await the coming of a sage to tell us not to burn down our houses to enjoy the delights of roast pig!

Let us unite to stop the ruinous flames of inflation. Curb wasteful and unnecessary government spending. Balance our Federal budget. Control our national debt and reduce taxes. Only in this sane way can we produce more straw and enjoy our houses, raise more pigs and eat them, too.

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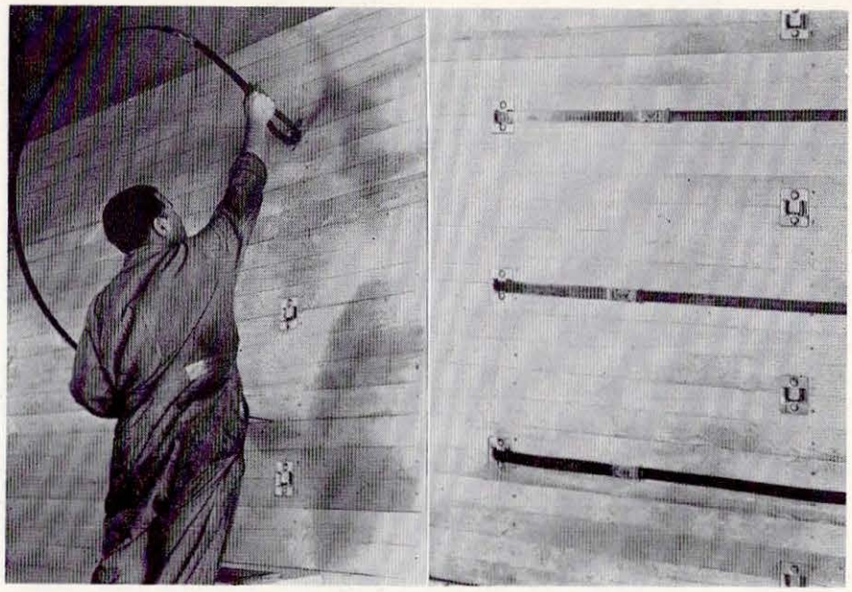


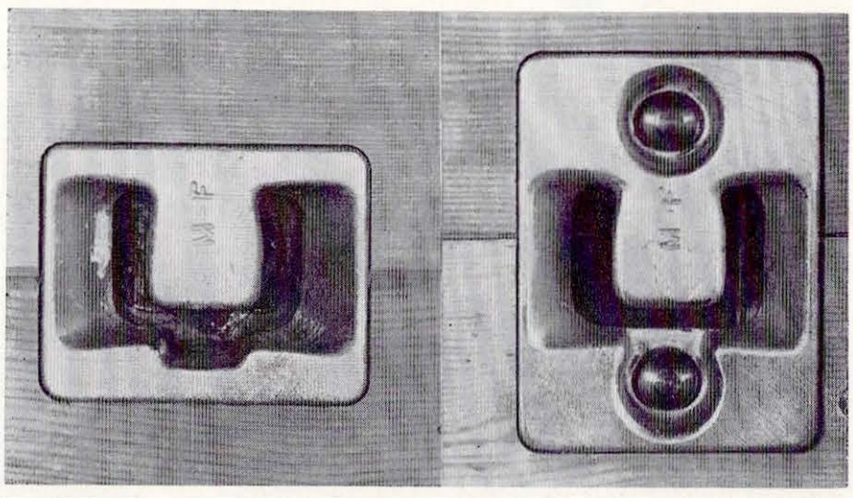
(Left) Application of the loop to the M-F strap anchor at top location. (Right) Straps held against car sides with cleats while the car is being loaded.

M-F Lading Strap Anchor

A lading strap anchor, recently developed by the MacLean-Fogg Lock Nut Company, Chicago, is one piece which may be applied to the Z-bar side posts of freight cars either by welding or with blind fasteners. The anchor is a drop forging designed to be stronger than the strongest strapping, which may be accommodated in widths from ¾ in. to 1¼ in.

Important features of the M-F strap anchor are that it locks the strap tightly in place even when there is no pressure from the lading; it may be used with all popular sizes of strapping; the tongue of the anchor faces downward, thus making the anchor self-cleaning; and it is easily applied either to existing steel house cars or to new equipment.

The only operation necessary in application of the strapping is to crimp the end of the strap on the floor before slipping under the tongue of the anchor. The load is tightened in the usual manner. Once applied in this simple way, the shipment is assured proper bracing, and when the car is unloaded all straps may be removed by lifting them out of the anchors without tools, eliminating further hazard to lading or personnel.

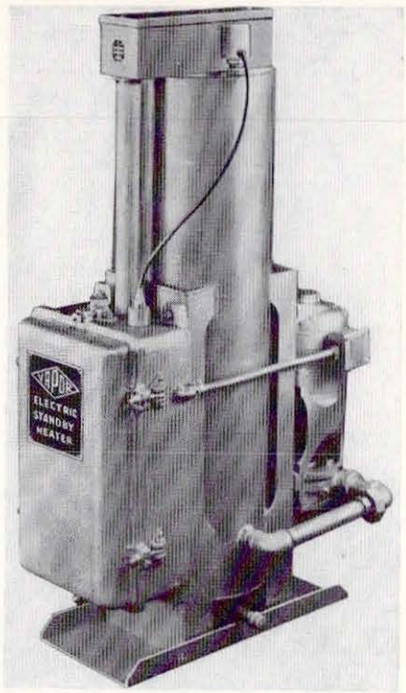


New M-F lading strap anchor designed for application by welding (left) or blind fasteners (right).

Electric Immersion Stand-by Heaters

The Vapor Heating Corporation, 80 East Jackson boulevard, Chicago 4, has developed two electric immersion stand-by heaters to keep engine coolant water in diesel locomotives warm during winter standby periods. Current for the heaters is furnished from an outside source after a unit is parked on a siding through a connection plug installed on the locomotive exterior.

Whenever the heater switch is turned on, a 1/3-hp. electric motor in the heater operates a centrifugal pump continually to circulate coolant water through the heater and the engine's cooling system. If the heater does not work properly an alarm bell signals the yard attendant so that correction



Electric immersion heater developed by Vapor uses outside a.c. current.

can be made before the engine cools down. Thermostats in the heater turn the heating elements on and off as necessary to keep the coolant water at a predetermined temperature, usually between 155 and 165 deg., although different thermostat settings may be used.

The heater is a complete package requiring small floor space—15½ in. wide, 27¾ in. long and 46¼ in. high. It uses 220- or 440-volt a.c. current. Two sizes are available. One puts out 75,000 B.t.u. per hour; the other 120,000 B.t.u. per hour.

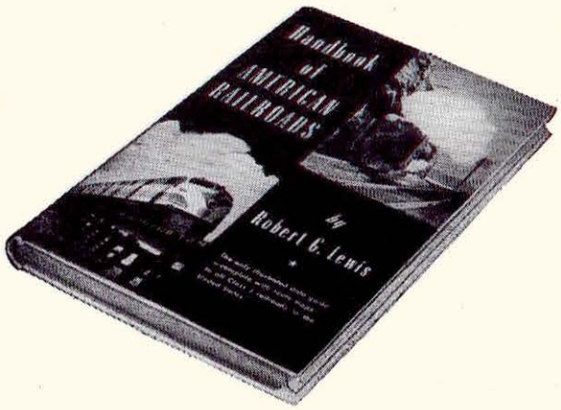
This lunch is on me, Jim, and I'm sure glad I lost the bet. As it is now, we've got our material a little ahead of time and we'll be able to beat our promised delivery date. You've sold me on the Monon.

Okay, pal. I'll take a nice thick steak and all the trimmings. I feel good, too. That Monon crowd sure did us a good turn. That's why I'm for them. They go all out to give service, from the top brass right down the line. They're for me.

MONON
THE HOOSIER LINE

There are 22 on-line and off-line Monon freight representatives serving the nation. Why not contact yours—now?

Chicago, Indianapolis and Louisville Railway Company



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Benchmarks and Yardsticks

NO CALLING has more at stake than railroading in the defense of wholesome political principles—because no other business activity is so completely in the clutches of politics. So it isn't untimely, especially around election time, for railroad people to size up the political situation—to see whether what is going on is in the direction of progress, or the reverse.

One thing that politicians of both parties are undyingly fond of is "democracy." Whether this affection is misplaced or not depends on what the word means. When the founding fathers considered "democracy" they had no use for it, but what they meant by the term was what is now known as "direct democracy." That is, the founders didn't believe that complex questions could be decided wisely by the mass of the electorate or (what amounts to the same thing) by legislators who always vote exactly as their constituents direct.

"Representative democracy"—on the other hand, where the people choose the legislators, but don't try to tell them how they shall vote on each issue—is one of the foundation stones of our republic. The other is the limitation and separation of powers—not only between the executive, legislative and judicial departments, but also between states and the federal government.

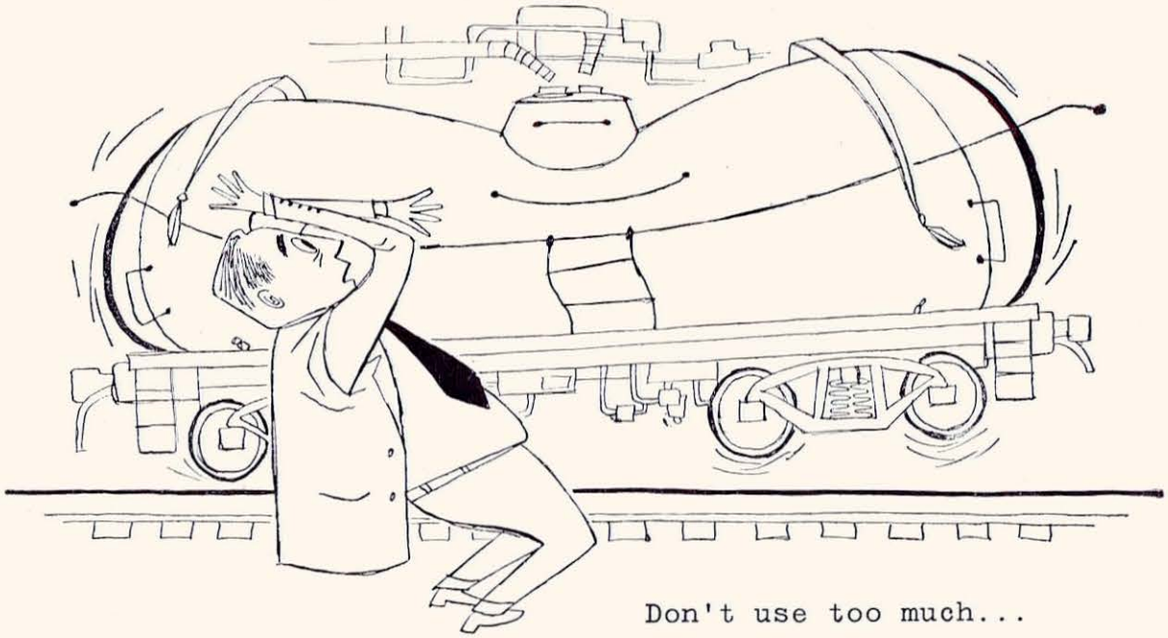
All politicians speak well of "democracy," but mighty few of them make clear what kind of democracy they're talking about. Some of them undoubtedly have "direct democracy" in mind, with no restraints at all on the majority. People who favor this kind of democracy are, in effect, saying that 2 and 2 may equal 5 or that, if a man becomes unpopular, it is quite all right to take him out and hang him for no other reason than his unpopularity. Unrestrained majorities, with no constitutional checks upon them, have many times put their power behind actions fully as false and unjust as these.

Lord Acton — who probably brought more ability to the exposition of political questions than any other man who has discussed them in the past century and a half—gives our country outstanding credit for political wisdom. Our founders, he pointed out, didn't protect America merely against royal or aristocratic tyranny, but also "against the power of its own sovereign people." In the French revolution of the late 1700's, the victors set up infinite protection against royal tyranny but "no security and no remedy against oppression from below."

Wonder what Acton would think of his own country today—or of ours, for that matter.

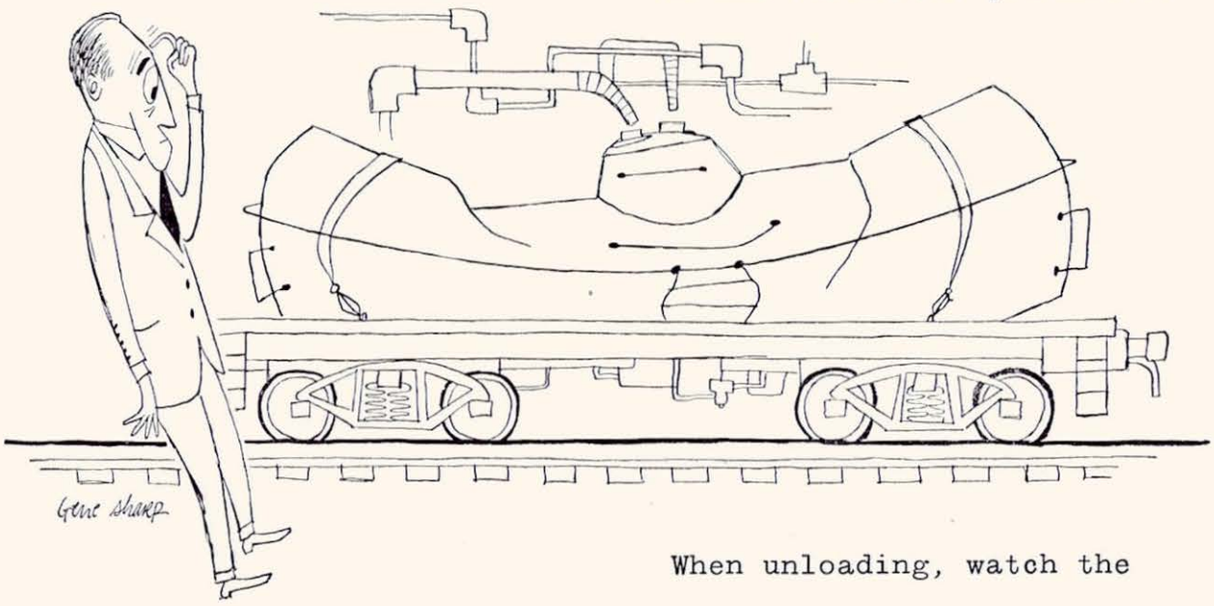
J. G. L.

THE CARE AND NURSING OF TANK CARS



Don't use too much...

or too little air pressure..



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PRICING PRACTICES, A KEY PROBLEM IN TRANSPORTATION

One of the principal difficulties confronting the railroads in meeting competition of other forms of transportation is the essentially different manner in which payment for railroad service is made, when compared to payments for the service of other transportation agencies.

Changes are occurring—not apparently in accordance with any deliberate plan—in the manner of collecting the costs of transportation. These changes, if they continue, might finally bring about a greater degree of similarity among all agencies of transportation in the method of recouping their costs. For example, the rapid growth of toll highways tends to levy the costs of highway service upon users in somewhat the same way that railway patrons pay for railway service—that is, in direct proportion to use.

Here and there, particularly in the New York area, there are proposals for taking property taxation off of commuter-hauling railroads. This development, if it progresses, would tend to make the ticket-office charge for railway service somewhat less than the total cost—that is, it would make railroad pricing rather more comparable to the pricing of motor, waterway and air transportation than it is now. Such changes in pricing practice merit careful observation, because they may have a lot to do with determining how the nation's transportation work is ultimately divided among the various methods of transportation.

Total Cost Covers Many Items

The total costs of transportation service follow the same pattern for all methods—being a combination of, at least, the following items: (a) capital costs of fixed property; (b) capital costs of motive power and vehicles; (c) property taxes on fixed plant; (d) property taxes on vehicles; (e) operating costs for actual movement of traffic; (f) "overhead" and management expense; (g) income taxes; (h) excise taxes—either on the company, the vehicles, or the service.

Not all these costs are incurred directly in proportion to the traffic actually moved. For example, a railroad incurs its capital costs on fixed plant (a), its property taxes (c) and (d), its management costs (f), and a large part of capital costs for rolling stock (b)—with very little direct relationship to the amount of traffic handled. If railroad customers or the taxpayers were to make *pro rata* contributions to railroad treasuries (as is done for some other agencies of transportation), covering all or a part of these highly inflexible costs, the railroads could then afford to establish quite modest charges for actual movement of traffic. Such charges would then have to reflect only actual operating expenses (e); plus management expense (f), and income and excise taxes, (g) and (h).

In actual practice, however, the railroads add up all their costs—(a) to (h) inclusive—and apportion them *pro rata* upon all their traffic. The result is a figure which often seems competitively high to the purchaser of railroad service who is accustomed to doing business, also, with transportation agencies which cover part of their costs in quite a different manner.

Take a private barge operation, for instance. There is no capital cost of fixed property to consider (it's there, of course, but the general taxpayers pay it); and there's no property tax on fixed plant either (although other taxpayers have to pay higher taxes because this kind of transportation property is tax-free). Excise taxes (h) on the transportation are avoided (indicating, again, that other taxpayers must pay more because of the exemption).

Capital costs for vehicles have probably already been paid when the barges and tugs were purchased. All in all, the private barge operator will be confronted with an *additional* outlay to move a cargo by barge which will reflect only a small fraction of the total actual cost of the movement. This will frequently come to a figure which may seem attractively low alongside a comparable railroad rate, which will usually include full coverage of all the costs incurred, (a) to (h), inclusive.

Conservation of the country's resources of capital and

labor requires that selection among the available agencies of transportation be made on grounds of comparable economy. Such selection cannot be expected to occur until there is a closer approach to parallel methods of collecting costs by all the various agencies of transportation. Such similarity can be achieved either (1) by collecting a part of railway costs elsewhere than at the ticket-window, or (2) by collecting from the users a larger proportion than at present of the total costs of other forms of transportation, and making the collection at the time of actual use.

The approach to parallel methods of charging by taking some of the costs of railroad service off the price paid at the ticket-window has been proposed for the Staten Island Rapid Transit (*Railway Age*, August 11, page 58). In this instance, the railroad would transfer to the City of New York the title to a line now incurring heavy losses from transit operations, relieving the railroad from property taxes on the line and from prospective heavy capital expenditures for grade crossing elimination. The railroad would, for a nominal rental, get the right to operate over the line thus sold. It would operate transit services as the "agent for the city," and receive a payment from the city for each passenger handled, in addition to fares collected directly from the passengers—getting sufficient added revenue to turn a heavy operating deficit into modest net earnings, after bond interest.

"Bingham Formula"

The proposal would effect savings for the city over the costs it would incur in additional red-ink bus operations to supplant the railroad transit service if abandoned—and the municipal authorities doing the negotiating believe that private operation of the transit service would tend to secure greater economy than if the municipality should take over the transit line for direct municipal operation. One of the city's negotiators on this proposal is Colonel Sidney H. Bingham, who is chairman of the three-man board which operates the city's transit lines, and the proposal is an application of the principles of the so-called "Bingham formula" for retaining private operation of transit lines where political and financial conditions appear to require some measure of socialized ownership.

This paper has no enthusiasm for compromises with socialism. The fact remains, however, that there are some railway services which are not going to be abandoned even if the political climate will not permit the collection of compensatory charges at the ticket-window. There needs to be a lot of heavy thinking going on throughout the railroad industry and among its customers to find ways and means of adapting railroad pricing practices to the exigencies of their political and competitive environment. Much of this adaptation will require the cooperation of political and regulatory authorities, but at least some of it could be initiated by the railroads and their customers themselves.

"PLANNERS" VS. INDUSTRIAL SITES

"We take some godawful chances," remarked one important railroad industrial development officer, the other day, when he was asked how long his company planned ahead in developing suitable business sites along its lines. "We look 20 years ahead, but never know when some starry-eyed professional 'city planner' is going to come in and destroy, forever, the possibilities of industry's developing a suitable site." Housing projects and industrial development don't mix.

Fact No. 1: Easy access to railroad transportation is a necessity for industrial development; for residential areas, nearness to tracks and yards may go along with declining value and deterioration into slums.

Fact No. 2: Assembled, integrated tracts of sufficient size, with easy access to existing railroad lines, are becoming rarer and rarer about most cities in the country. Sites suitable for housing, in contrast, are more numerous and qualifications less stringent.

Fact No. 3: A city has to make a living, before anything else. Good industrial sites are, therefore, its most valuable posesssion.

In the two largest cities in the country—New York and Chicago—the potential value of industrial sites has been threatened by public housing enthusiasts. In The Bronx, the City of New York's "slum clearance" program has its eye on one of the few suitable sites for heavy industry, served by rail, available in that borough. In Chicago "public housers" want to take over the only site available for a new coal rail-water terminal planned by the Chicago & Western Indiana.

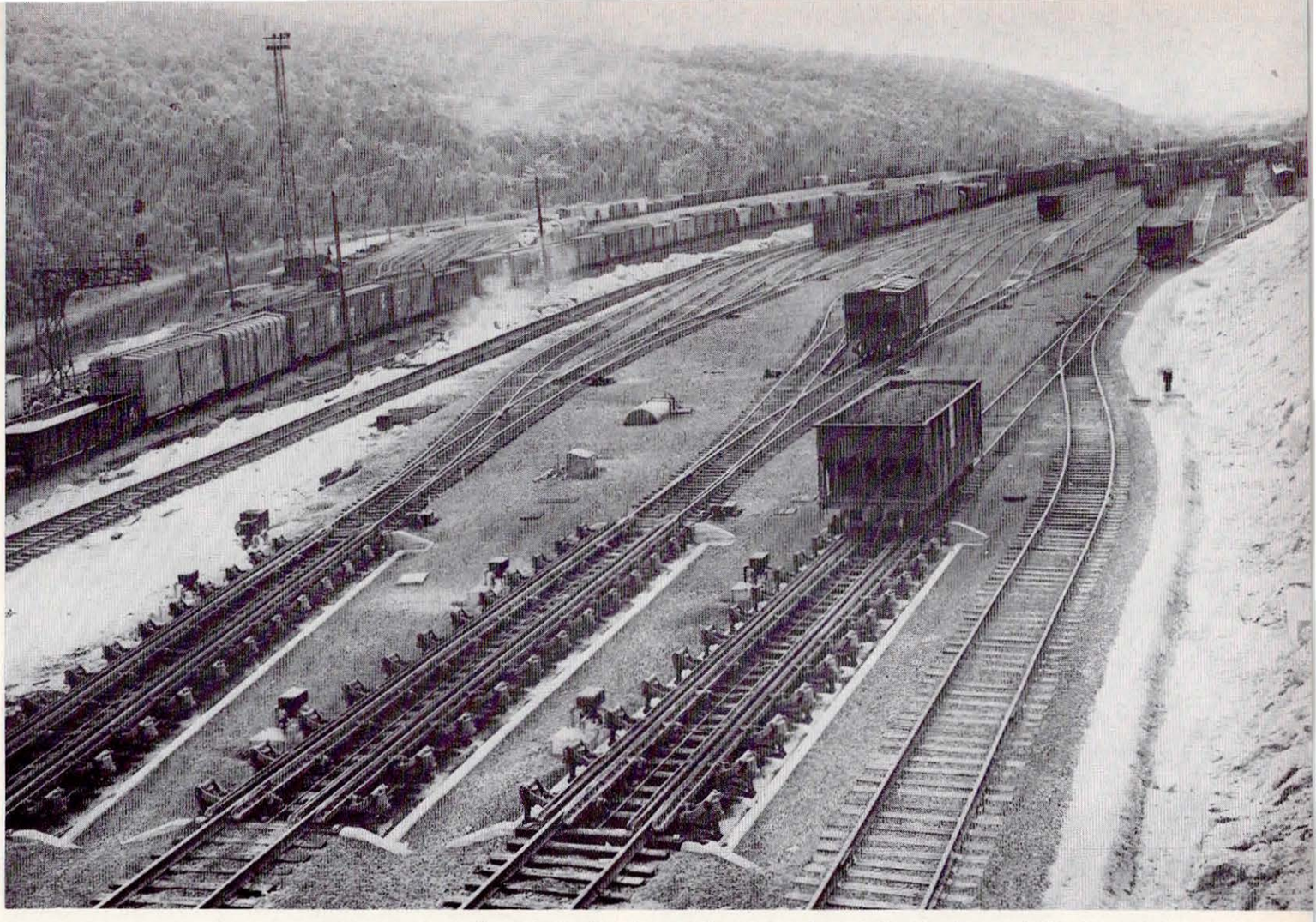
The railroads and their customers have a deep interest in the availability of suitable, assembled industrial sites. They have a common enemy, well described by H. A. Wood, commissioner of development of the Canadian National:

"Industry is a community's principal source of revenue. Yet, an enterprising real estate promoter is frequently allowed to sterilize the only industrially-useful land with a cheap housing development—a development which, by its very proximity to the railway track, is foredoomed to become a slum or low-class residential area. . . .

"Parks and green belts are a delight and much to be desired, but man must work to live and the community needs tax money to keep the grass in the parks cut."

INDEX TO VOLUME 132

The index to the latest volume of *Railway Age*, January to June 1952, is now ready for distribution, and copies may be obtained by those subscribers desiring them. Requests should be addressed to the Circulation Department, *Railway Age*, 30 Church street, New York 7. Subscribers who have in previous years made application for the index need not apply again.



At the right in this photo is the new westbound classification yard. The long string of cars at the left is a road train pulling out of the eastbound classification yard.

$3.6-Million Yard Improves Service For Jersey Central Patrons

Investment to be returned in less than four years; yard makes possible classifying cars in more efficient facility

A recently completed yard construction project of the Jersey Central Lines at Allentown, Pa., which cost the carrier $3.6 million, is expected to produce a return on the investment of more than 25 per cent per year, and at the same time make it possible for the JCL to improve substantially its service to patrons. A not inconsiderable portion of this return on the investment will come about through a decrease in the amount of per diem the road will have to pay for car hire, indicating that the carrier will be able to get cars off line more quickly, which of course means faster service to the shipper. Other factors which will help to make the return possible will be:

1. A reduced amount of switching in a more restricted operating area at the east end of the railroad;

2. Number of cars switched per hour at Allentown will be more than doubled;

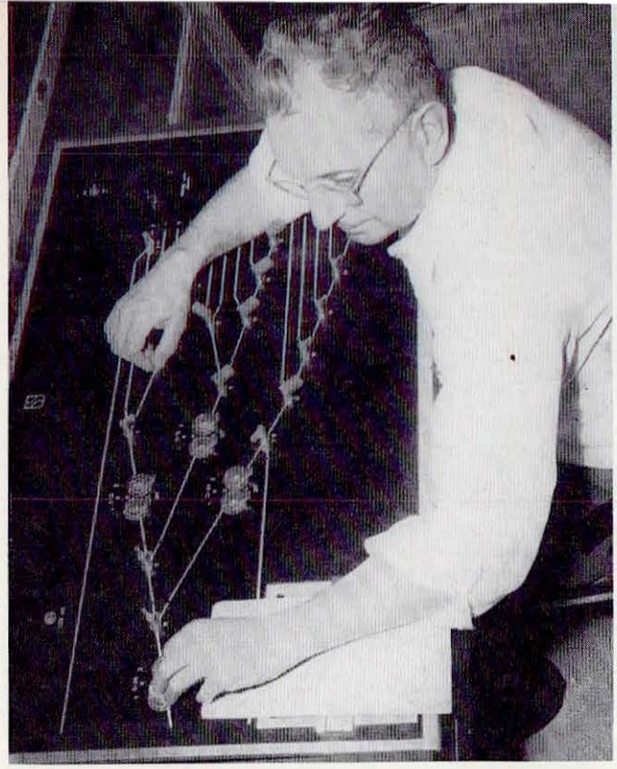
3. Reduced number of classifications necessary at eastern yards will make it possible better to regulate traffic headed for Allentown, so that trains will not all arrive in that yard in one short period of time; east-end yards will benefit, too, from the better regulation of work flow; and

4. More expeditious and less expensive handling of bad-order cars at Allentown.

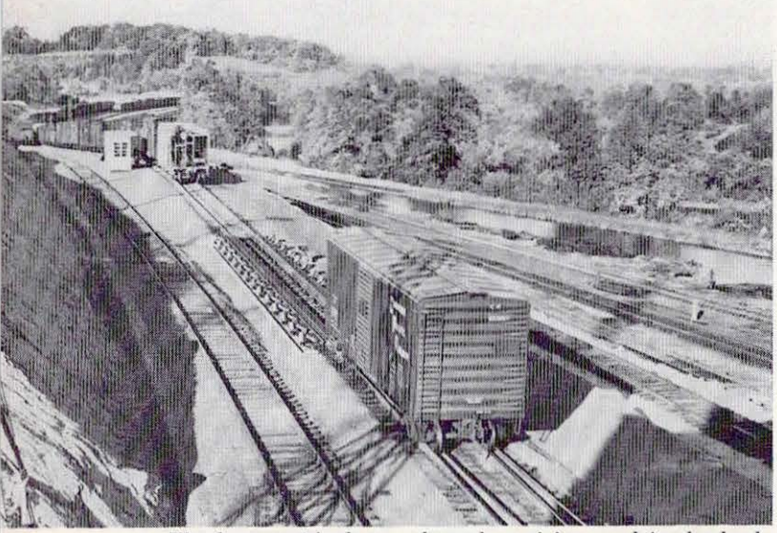
In addition to the more efficient track layout (see drawing), these desirable results will be brought about, in part, through use of the latest type of electro-pneumatic car retarders on the westbound hump at Allentown; talk-back loudspeakers scattered through the yard; and engine-to-yard-office radio.

Prior to completing the new yard at Allentown, westbound traffic out of the so-called (eastern) terminal district (including yards at Jersey City, Bayonne, New-

This tower contains the yardmaster's office (top floor) and retarder operator's quarters. Floodlight tower at right shows paging speakers about half-way up the mast.



A retarder operator at the control board; one man controls switches as well as retarders. Switch list is under the operator's left forearm.

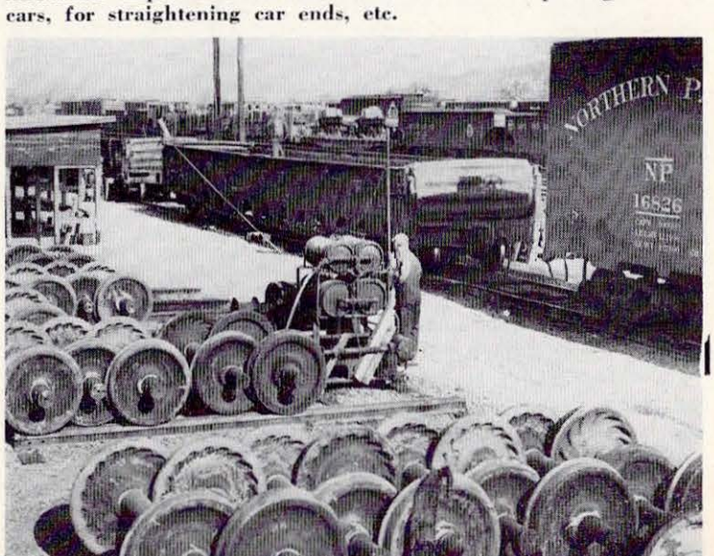


The hump with the westbound receiving yard in the background. Grade of the hump is 2.80 per cent from the apex for about 250 ft. down into the classification yard. Then it becomes 1.45 per cent for another 200 ft.

Superintendent W. J. Carroll at the yardmaster's desk. In addition to telephones and Teletype (not visible here), the yardmaster can use paging speakers, and communicate by radio with hump and trimmer engines.

Cropped rail was pressure welded and then cut into 78-ft. lengths for laying in the yard. This is expected to reduce maintenance costs.

Better repair facilities are an important feature of the Allentown improvements. This winch is used for pulling cars, for straightening car ends, etc.



ark and Elizabethport) was laboriously classified in flat switching yards and consolidated from these several yards for dispatch in road trains. In many cases this required handling a car five or six times by as many crews before it could be dispatched in road movement. Fifty per cent of the Jersey Central's carload traffic out of this district is destined to the Allentown area or to some destination farther west. It was apparent, therefore, that much of the classifying done at these eastern yards could be eliminated *if* Allentown could handle the traffic. The "rub" was that Allentown couldn't expeditiously handle the traffic it was receiving, in spite of the fact that every effort was made to give that yard its traffic in large blocks (which would eliminate some classifying there) or in solid trains which would by-pass Allentown yard on their way to western termini or connections. The answer seemed to be that something had to be done about Allentown. It was.

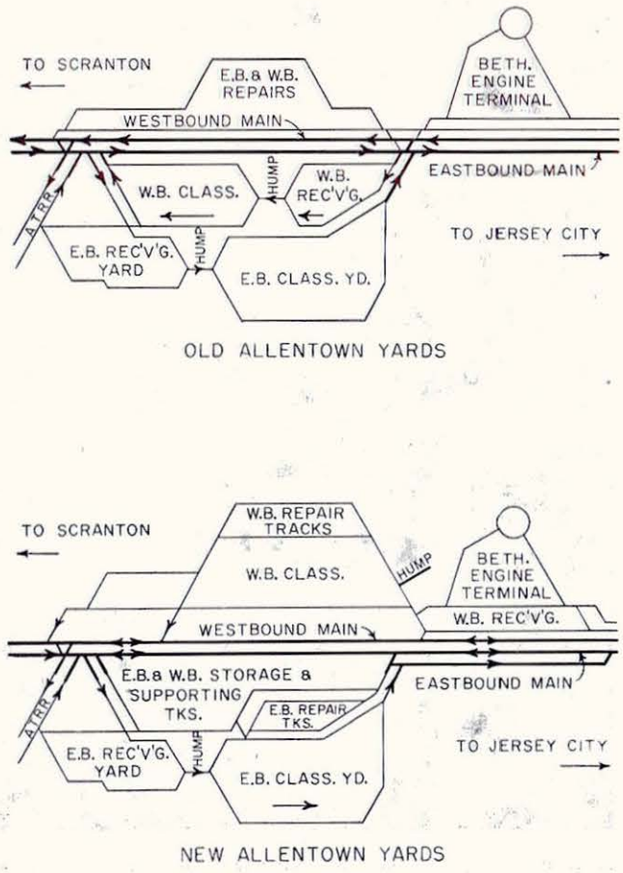
Old Facilities Inadequate

There were many reasons why Allentown could not handle increased traffic, prior, that is, to the rebuilding. For example, both westbound receiving and classification yards were located south of the main line (see drawing). This meant that westbound trains pulling into the yard frequently fouled both main tracks and the leads out from the eastbound classification yard. The same unsatisfactory condition applied at the west end of the westbound classification yard, where departing trains fouled the main line and the lead to the eastbound receiving yard. Also, when traffic was running heavy, a considerable portion of westward traffic had to be handled in a flat switching yard on the north side of the main tracks. This was done in the area near the repair tracks, shown in the drawing. A further great disadvantage was that bad-order cars either had to be cut out of incoming trains in the westbound receiving yard and moved there to the car repair facilities on the north side of the main track, or they had to be put over the westbound (manual rider) hump, then pulled from the classification yard across the main and shoved into the rip tracks. Engines coming to the yard from the Bethlehem engine terminal frequently were delayed through having to cross the main tracks.

Also, receiving tracks in the westbound yard were not of sufficient capacity to take one of today's trains. Similarly, in the westbound classification yard this same situation prevailed, meaning that outbound westward freights usually had to be doubled from two to four times before the crew had its train together. This frequently meant that the main tracks were fouled for lengthy periods of time while the doubling was going on.

Under the new set-up at Allentown, westbound trains pull into a receiving yard on the north side of the main. This receiving yard consists of four tracks, each capable of holding a 150-car train. The 18-track westbound classification yard has tracks capable of holding half a train. Therefore, at present, doubling in the classification yard, when that is necessary, never fouls main-line tracks longer than is necessary to make one double.

Bad-order cars now are shoved over the hump and go directly by gravity to car repair tracks, classified, of course, as to the type of repair needed. As in most yards, there is a hump by-pass track so that the worst of these bad orders, or cars on which the load has shifted so badly that they cannot be humped, can be shoved down to the rip yard. There are three tracks in the repair yard, with capacities of from 18 to 22 cars; one of these is a material storage track. Switching cars to be repaired



Schematic diagram of old and new track layouts.

now requires considerably less time and expense than formerly. Per diem on such cars alone will be reduced, it is estimated, by from $15,000 to $20,000 per year. This fact in itself indicates that westbound service is being improved substantially.

As mentioned above, when the planning for Allentown was done, opearting conditions on the east end of the railroad had to be considered. Since all yards on the east end are flat switching yards, any reduction in the amount of classifying done there would be both a time-saver and a means of cutting expenses. Since the Allentown project has been completed, the number of classifications at Jersey City, for example, has been reduced. Solid trains are built up at that spot and Allentown does the work of blocking for points west of that city. This means that westbound trains can be made up daily and dispatched somewhat earlier in the day than usual, eliminating much of the congestion during evening hours at the east end and in the late evening and early morning hours at Allentown. More work performed during daylight hours also helps to promote safety.

One other factor is helping to improve westbound service out of Allentown. Road engines now get to their trains more quickly than they used to. Now they move directly through the receiving yard, around the hump, go to the west end of the classification yard and double to the cars. Formerly, crossing of main tracks and involvement with opposing moves on the leads at either end of the yard frequently meant delays in getting cars and locomotives together.

At Kansas City a tractor operator uses radio to find out where to go for his next load.

Intensive Sales Efforts Help REA Regain Traffic

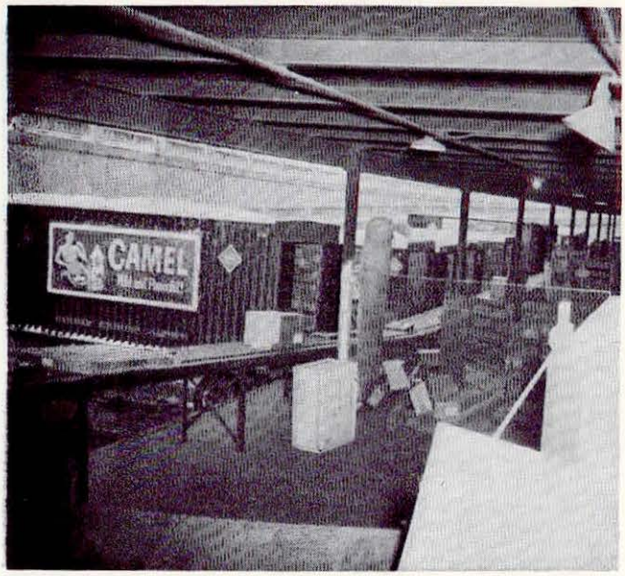
Traffic in first seven months of year up 14 per cent from 1952 levels; salesmen help shippers save money, get business

A 14 per cent increase in number of shipments handled and a 22 per cent increase in revenue from handling those shipments is the way things have shaped up for the Railway Express Agency after seven months of its "Build Anew in '52" program. As a result, employment has increased by nearly 2,500 persons (up to October 1, and since January 1), and the general attitude of REA employees is much more optimistic than it was a year or so ago.

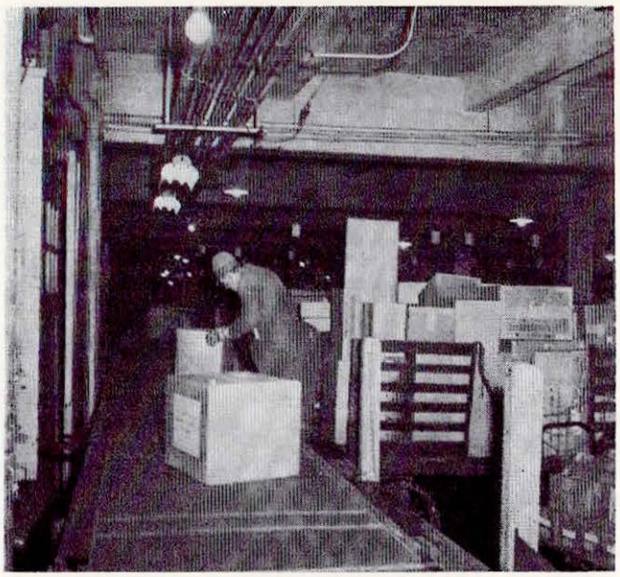
No one makes any "bones" about the fact that the main reason for this increase in traffic has been the changes in parcel post regulations which became effective January 1 this year, which limited the size and weight of parcels which could be transported by the post office. However, the way the Express Agency has gone about selling the advantages accruing to it as a result of the regulations has contributed in no small measure to the increase in traffic. This has been done by pointing out to industrial traffic managers and others that what look like bargain rates from the post office department are frequently "a snare and a delusion" when overall costs such as packing, labor charges, trucking, insurance, etc., are considered.

Information useful to express salesmen is disseminated through monthly and weekly publications, which tell of ways the salesmen can be of help to their customers. And in order to try to make sure that when REA does handle the traffic, it will be able to give the good service which will make the patron want to give the agency still more new business, additional freight service inspectors have been put on and freight stations are being more fully mechanized. Since it is possible that there will be another increase in parcel post rates in 1953 there may be still more business in store for the agency.

When it became known that there would be changes in parcel post regulations which would have a great deal to do with changing shipping practices in some industries, the Express Agency had an independent re-



At Kansas City outbound shipments are loaded onto a conveyor belt which takes them inside the freighthouse . . .



. . . where they are marked, sorted and placed on trailers. Tractors pull loaded trailers to trainside.

search organization go out and find out just how much business would be diverted from parcel post to some other transportation medium. The figure arrived at was 48.5 million shipments. This figure was further broken down by shipments, by types of industry and by the transportation medium which the shippers said would get the business. With this as a working basis, REA planned a campaign designed to get not only all the business said to be coming to it but what shippers said would be diverted from parcel post to trucks, forwarders, etc. REA officers figured that if they could "automatically" get some of the business there was no reason why, with a little effort, they couldn't get more.

In attempting to sell shippers who were formerly users of parcel post on the idea of shipping via Railway Express, the agency suggested to these people what breaking down large packages probably would mean to them in terms of additional costs for containers, etc. The presentation would follow these lines:

A shipment weighing 70 lb. moving by express to a point in postal zone 6, for example, valued at $50, can be placed in one container. To ship by parcel post, however, the shipment would have to be broken down into four packages, three of them weighing 20 lb. each and the fourth 10 lb. Comparing shipping costs via parcel post and REA the figures looked like this:

	Parcel Post	REA
Transportation	$7.04	$8.73
Containers	1.00	.25
Packing	.28	.07
Labor	.36	.09
Cartage	.80	—
	$9.48	$9.14

Since there is no free insurance when shipping by parcel post, this item would be an added expenditure when freight was handled by the post office. Also, the relatively low cost of C.O.D. service via express, compared with parcel post, was pointed out in bulletins. Apparently this "pitch" has worked in many cases.

Many other examples have been printed in REA's monthly "Traffic Sales Bulletin" and in the weekly "Sales Gram." In a recent issue of the "Traffic Sales Bulletin," for instance, the following story was told:

A commercial agent noticed that REA was losing all its traffic from one manufacturer. After talking with the traffic manager he learned that consignees were issuing routing instructions which were against REA and gave the business to parcel post. The agent made a traffic study, which developed the fact that breaking down the larger unit and separately packing the new units created was costing the shipper 60 cents for shipments weighing between 21 and 50 lb. REA has what it calls a "paid in part" service, where shipper and consignee each pay a part of the transportation charges. In this case, therefore, the shipper agreed to pay 10 per cent of the transportation charges, a minimum of 50 cents per shipment, and now a good deal of the business is moving REA.

In addition to furnishing the type of material mentioned above, Sales Grams give reminders to salesmen that, for example, such a thing as attitude is important in selling. The Grams also indicate to salesmen that the time might be ripe to get after manufacturers of shirts, pajamas, etc., who, because of changed postal regulations, probably will soon be making an extra charge (to the consignee) of 25 cents per package shipped parcel post. With the increased business secured this year by REA it looks as if the information is being put to good use.

As mentioned above, while the agency is going about the job of getting business it is not neglecting opportunities for improving service. In the past year or so extensive changes have been made in facilities at Kansas City, Long Island City, and many other places. In addition, realizing that any organization is generally only as good as the relations between its supervisors and other employees, it has instituted a supervisory training course, designed to make supervisors better able to deal with their personnel.

By doing a good job of selling and then handling the traffic properly, Railway Express officers hope—and expect—to handle 100 million shipments this year. They are optimistic about 1953, and feel that next year they can do an even better job of earning money for their owners, the railroads of the United States.

This is the view that the operator has looking east from the retarder tower at Kirk yard. The large new building at the left is the general yard office. In front of it, near the crest of the grade, are the switch-control house and the scale house. The small yard at the right is the East yard.

"J" Spends $4.4 Million to Build More Efficiency Into Kirk Yard

Large yard is rebuilt with greater switching capacity for taking increased business in its stride and for saving 24 hours or more in handling cars in and out of Gary terminal

The Elgin, Joliet & Eastern has recently placed its rebuilt Kirk yard at Gary, Ind., in full operation after completion of a $4.4-million modernization project. This work was necessitated because of the limitations of the old yard arrangement, which was inadequate in switching capacity and in its general layout to handle the increased business at that point. The new facility will permit 20 per cent more cars to be switched daily with fewer switch engines than the old yard. Also, it will eliminate three or four handlings of a car while it is in the terminal, thus resulting in a saving of 24 hours or more in getting a car on its way to its destination.

Kirk yard is the most important freight classification point on the "J." It not only handles all the steel products which are shipped by rail from the Gary Works of the United States Steel Company and the major portion of the steel leaving the company's South Chicago Works, but it also handles a good deal of the iron ore and the coal, coke and many other ingredients necessary for production of steel at those plants. Furthermore, this yard is the focal point for the switching of cars to and from the many related steel-fabricating plants and other industries located along the road's industrial lines.

Before modernization, Kirk yard had a total capacity of 5,000 cars. It consisted of eight small flat-switched yards with tracks having a capacity of about 40 cars each. Cars were brought into one of the small yards and switched, then were transferred two or three times to other small yards for further sorting before leaving Kirk yard, thus requiring a great deal of time in this terminal. Trains departed from five of the eight small yards but had to be doubled when being made up and, in many instances, reswitched at other points on the line.

The increased capacity built into the steel-producing mills and the rapid expansion of other industries due to national preparedness measures, brought the shortcomings of the existing yard into sharp relief. Competition with large trucks for handling outbound shipments from the mills is very keen. To assure that the increased business would be shipped by rail, and with the realization that each customer of the steel companies was also a customer to be pleased by the railroads, the "J" decided that nothing short of a complete revamping of Kirk yard, including installation of a modern gravity-retarder classification yard and adequate communication facilities, would produce the better service desired.

The plan decided upon called for construction of a 58-track gravity-retarder classification yard built in a general east-west direction, and with the crest of the grade at the east end, located south of the existing loco-

The easterly end of the classification yard has seven groupings of eight or nine tracks each. Of the 58 tracks in this yard, 48 are used at one time for classification work, two are used for bad-order cars (loads and empties), and the other eight are used as needed for making up trains for departure.

motive terminal and car-repair yard at that point (see diagrammatic plan). Also included were two long lead tracks east of the ascending grade to the crest, other tracks to bypass the retarders on the north and south sides, and four other track groupings termed the North, South, East and West yards. Provisions were also made for inbound and outbound engine leads, caboose storage tracks, and tracks to give access to both ends of the car-repair yard.

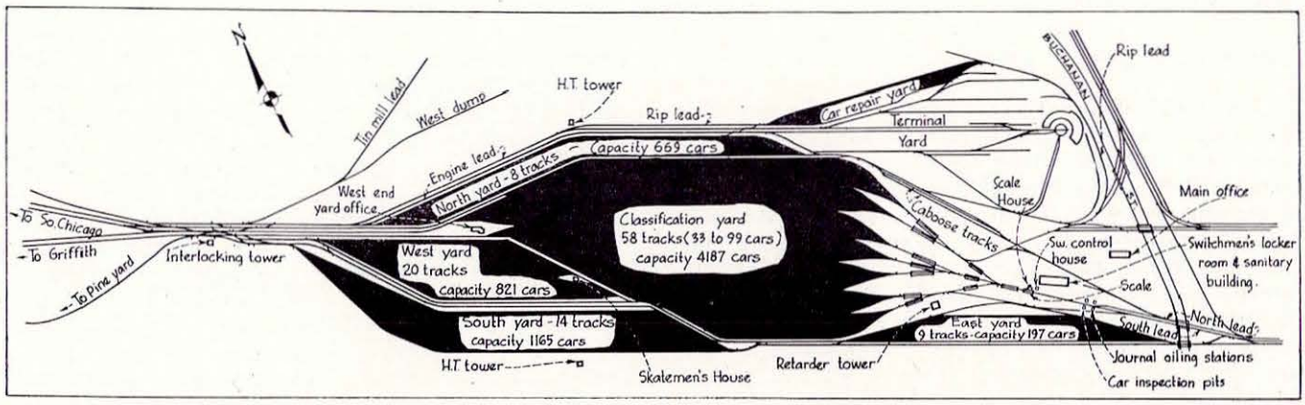
Work on this project began on September 1, 1950, and the facilities were put into full operation on July 25, 1952. The new yard has a total capacity of 7,039 cars and is expected to switch 1,000 cars during each 8-hr. shift. The rebuilt yard was superimposed over the old, which posed the problem of keeping the switching work abreast of the current business while the various stages of the work were being done. To assure maximum utilization of the available trackage at all times, it was necessary that close cooperation be maintained between the operating and engineering departments. To accomplish this objective, a smallscale model* of the critical portion of the old and new arrangements of Kirk yard was built. The model had two sets of 29 pieces each which could be interchanged to show the old and new layouts for each step of the work as it progressed. Hence, whenever a portion of the yard was to be taken from switching service for alteration, a consultation around the model could be held by all concerned to determine the best way to handle the switching during that phase of the project.

The North yard is a receiving yard for all traffic originating in the South Chicago Works district of the steel company as well as in industries located along the two main lines to South Chicago from Gary. It has eight tracks with a total capacity of 669 cars.

The South yard has tracks holding 90 cars each and is used primarily as a receiving yard for all road trains. It is also used for the short trains that come from the New York Central and which are destined to points west of Gary. These trains are classified for Joliet where further sorting of cars is made for other points. South yard has 14 tracks with a total capacity of 1,165 cars.

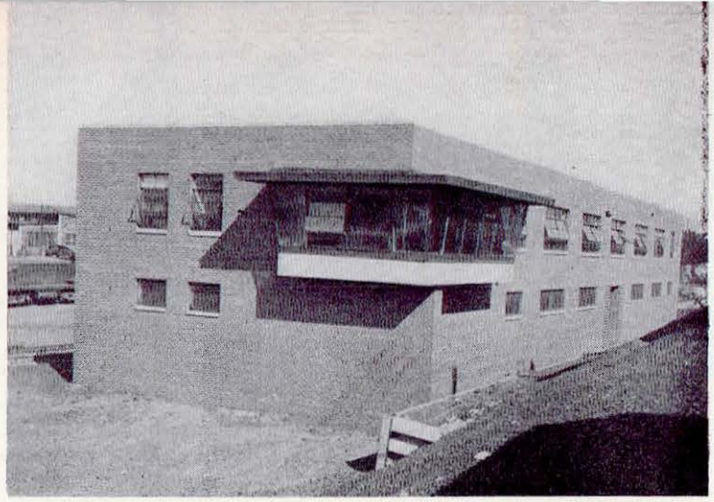
The West yard is used principally as an outbound yard but it also handles traffic from and to nearby rail-

*A detailed account of the scale model and its use was given in *Railway Age*, April 7, 1952, page 122.



Diagrammatic plan of the EJ&E's Kirk yard at Gary, Ind., as rebuilt into a retarder classification yard.

Approaching the switching grade, cars pass over a dragging-equipment detector located just this side of the switch, and pass the two journal-oiling stations and the depressed car-inspection pits.



The glass-enclosed projection on the second floor of the general yard office is the office of the assistant general yardmaster. He can see all operations at the east end of Kirk yard.

A yardmaster on the upper floor of the West End yard office has charge of operations at the west end of the classification yard, also North, South and West yards.

The key structure at the west end of Kirk yard is this interlocking tower. From the top level an operator regulates train movements in and out of the yard.

road connections, such as the Wabash, the B&O, the PRR, and the NYC, as well as for nearby industries other than the steel mills. This yard has 20 tracks and a total capacity of 821 cars.

The East yard also is used for cars to and from nearby industries, particularly those at the eastern end of the line. It is also used as a "hold" yard for cars on which no disposition is immediately known. This yard has nine tracks, holding from 15 to 35 cars each, giving a total capacity of 197 cars.

Has Long Approach Leads

The classification yard is switched from the east. The two long easterly switching leads cross a new bridge built over Buchanan street and merge into one track about 650 ft. west of the bridge. This track ascends a 3 per cent grade for 500 ft. to the crest, then descends on a 3 per cent grade for 300 ft., where the track fans out into three, then into seven track groupings to produce a total of 58 classification tracks, while the grade gradually flattens out through a 1.5 per cent gradient for 400 ft. and an 0.8 per cent gradient for 190 ft., after which a descending grade of 0.2 per cent is maintained on all tracks of the classification yard. At its west end, this yard is switched from four leads.

Located on the single-track approach to the grade are a dragging-equipment detector, journal-box oiling stations and car-inspection pits on each side of the track, a whitewash ejector for temporarily marking bad-order cars, and, near the grade crest, a switch control house which contains the control machine for operating the electric switch machines with which all switches at the easterly end of the classification yard are equipped.

A track scale, for weighing cars in motion, and 11 retarders are located on the slope descending from the grade crest. The primary retarder and the seven final retarders are each 90 ft. long and of two sections, while the three intermediate retarders are each single-section and 45 ft. long. These retarders, as well as the electric switch machines and controls, are of General Railway Signal Company design and manufacture. The retarders are controlled by one operator from a control tower located south of the intermediate retarders.

A two-story general yard office building was built just north of the switch-control house. This structure houses an office for the road's police department and welfare facilities for switchmen on the first floor, while the second floor contains quarters for the general yardmaster, assistant general yardmaster, car inspector, road-crew caller, yard and car-record clerks, women's lounge, and a large assembly room with a show-up board for

road crews, and a mark-up board for switch crews, skatemen and retarder operators, as well as seating facilities.

Another building, termed the West End yard office, was constructed at the west end of the classification yard. This structure contains a boiler room, a car inspector's office, locker and shower room and a lunch room. A tower of two additional floors was constructed at one end of this building. The second floor contains a women's wash room and a clerk's lunch room, while the upper level contains a large office for a yardmaster and a yard clerk.

A former bottleneck in getting trains in and out of Kirk yard was eliminated by relocating the ends of the road's three main tracks from South Chicago, the two main tracks from Joliet, and the single main track from Pine yard so that they converge into four main tracks. These were interconnected by means of crossovers and an interlocking plant. All switches within the interlocking plant were equipped with electric switch machines controlled by an operator from a tower that was built south of the layout. The switches at the west end of the 14 tracks forming the South yard were also equipped with electric switch machines, and these are remotely controlled from the tower. No switches on the west leads to the North, West and East yards were equipped with electric switch machines, but track indicators, operated from the interlocking tower, were installed.

Communications

The assistant general superintendent, superintendent and agent have offices in an existing two-story building, known as the General office, at the east end of Kirk yard. This building is connected with all of the important buildings in the yard by one or more communications systems. A Teletype system connects it with the yard clerks and with the assistant general yardmaster in the general yard office building, the switch-control house, track-scale house, retarder operator's tower, yardmaster's office in the West End yard office, and the yard clerk located in the operator's room of the interlocking tower. All of these points are receiving stations for the Teletype, but two of them, i.e., the General office and the West End yard office, also are sending stations.

An extensive intercommunication system was installed so that each of the operating personnel, whose duties require them to converse with others with whom they would normally conduct railroad business, can do so immediately.

The yard is blanketed with talk-back and paging speakers, and control panels are located in the assistant general yardmaster's office, the retarder tower, the yardmaster's room in the West End yard office, and the interlocking plant.

A pneumatic tube 10,500 ft. long connects the agent's office with the interlocking tower and another one 700 ft. long extends to the general yard office.

Construction Work

Construction began with the engineering and grading work, and with the revision of the entrance track layout at the west end of Kirk yard, including the installation of the interlocking plant to eliminate delays to trains entering and leaving this point. This was followed by construction of the 14-track South yard, since this yard was superimposed over only a small portion of an existing small yard. By so handling, the new yard actually increased Kirk yard's capacity by about 600 cars. From this stage on the work encroached more and more on the existing yard facilities.

About 180,000 cu. yd. of sand, placed under contract, was used for embankment purposes for the switching leads, and approximately 190,000 cu. yd. of additional sand was loaded on hopper cars by railroad forces and unloaded for raising the yard tracks as much as 28 in. The tracks were raised by means of three power jacks and a Jackson multiple tamper. Slag ballast, from ¾ in. to 1½ in. in size, was used in making the main track changes at the west entrance to the yard, as well as for ballasting the easterly approach leads and the tracks to the ends of the final retarders. Engine cinders were used for making the final lift of the yard tracks, after which a Nordberg yard cleaner did the track dressing.

Approximately 171,500 ft. of track were built, 193,500 ft. of existing track were reused, and 31,100 ft. retired, all by railroad forces. All of the new trackage and turnouts were laid with new 115-lb. rail and fastenings while the tracks in the bodies of the yards were laid with secondhand 130-lb. and 100-lb. rail. Two lap switches, combining No. 6, No. 8 and No. 10 frogs, were used at the retarder end of the classification yard to produce track clearances quickly and obtain as much car room as possible for each track.

The bridges and buildings were built under contract. Over the Calumet river a double-track skewed girder span, 107 ft. 7 in. long on concrete abutments, was built adjacent to an existing single-track span for the approach leads. Also, a double-track skewed girder bridge, about 59 ft. long on the north and 49 ft. long on its south side, was built on concrete abutments over Buchanan street, and an existing bridge over this street was removed.

Construction of Buildings

Construction of all new buildings followed the same general pattern, and included concrete foundations with no basements, concrete block exterior walls faced on the outside with brick, concrete floors, exposed ceilings, built-up roofs, and concrete block partition walls. The operator's rooms of the interlocking plant, retarder tower, West End yard office, and the office rooms of the general yard office have floor surfacings of asphalt tile and ceilings finished with acoustical tile. The journal oiling stations and the car inspector's pits are of reinforced concrete.

The various buildings at the easterly end of the classification yard are heated by steam from the terminal power plant. The West End yard office and the interlocking plants have been equipped with oil-fired automatic steam boilers.

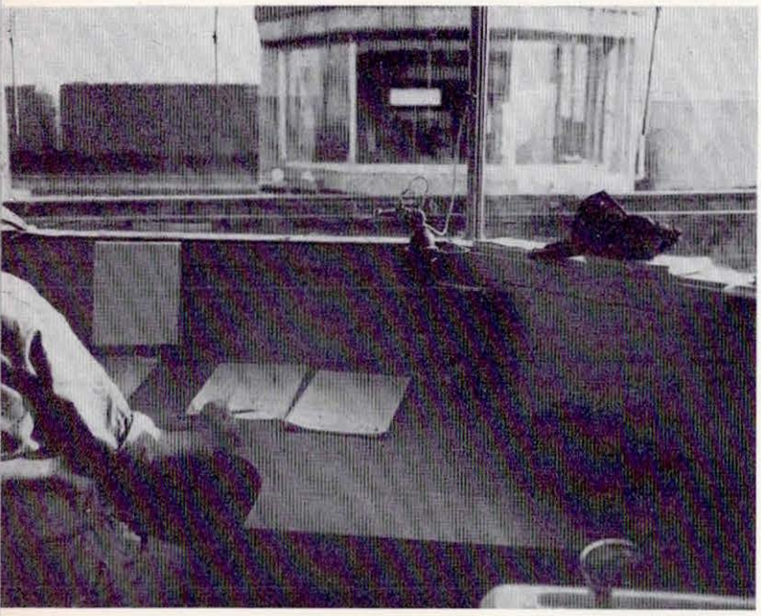
Also involved in this project were the relocation of four existing floodlight towers and one high-tension power line tower, and the construction of a new high-tension tower where a power line crossed over the yard.

A large assortment of work equipment, including earthmoving machines, off-track cranes, and track-building machines, was used in this construction work. To assure maximum availability of this equipment at all times, the road used a special truck for servicing all equipment with gasoline, oil, grease, and water, and assigned a repair foreman and three mechanics to keep the machines in good operating condition.

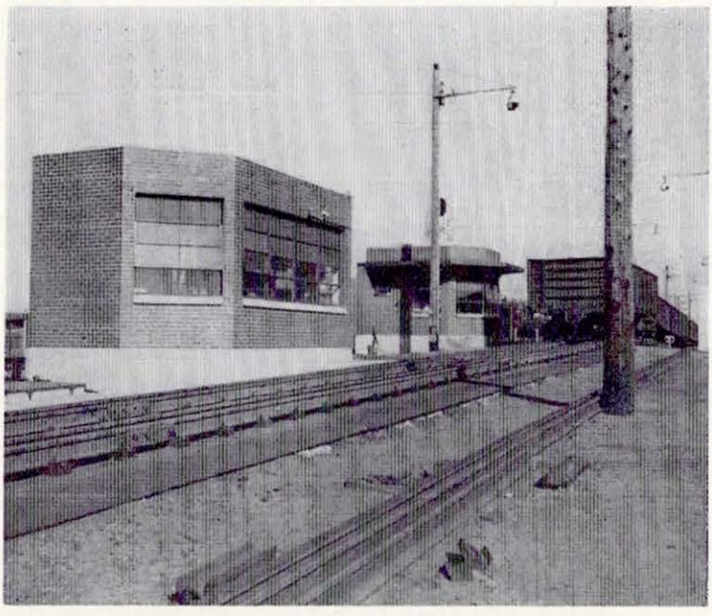
This project was built under the general direction of F. G. Campbell, chief engineer of the "J," and under the direct supervision of S. H. Shepley, assistant chief engineer, while R. V. Dangremond, special roadmaster, had charge of all track work.

As trains pull in or out of Kirk yard, a yard clerk in the upper level of the interlocking tower talks into the Dictaphone recording machine (at left of desk), announcing each car number, the kind of car and, if possible, whether it is a load or an empty, in the same sequence that the cars pass him.

Some cars come into Kirk yard carded on the north side, in which case the yard clerk must leave the tower and stand north of the train to read the cards. On these occasions, the Dictaphone machine in the tower is operated by remote control by means of an extension cord plugged into a phone jack of the nearest electric switch machine.



From depressed inspection pits, car inspectors examine wheels and running gear as cars pass by them. Lights at the sides and at the tie level illuminate the undercarriages of cars at night. Car inspectors announce the discovery of defective cars over an intercom system immediately so that such cars can be routed direct to bad-order tracks.

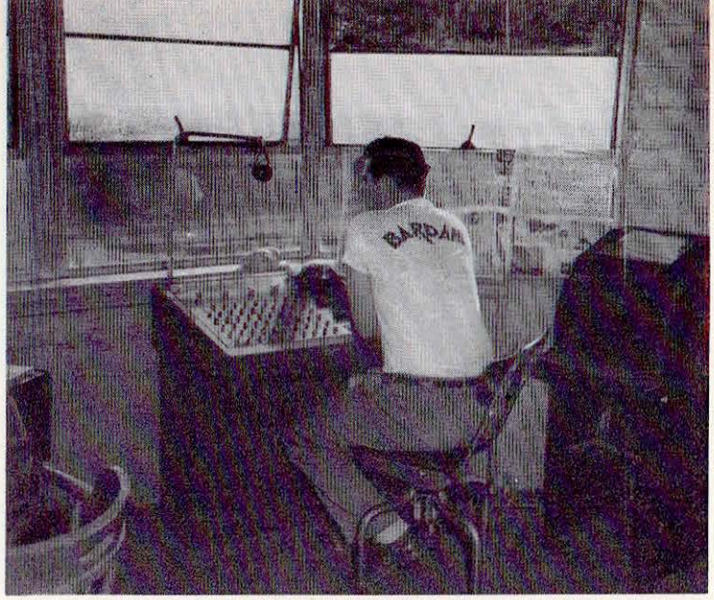


In this view the forward gondola car has reached the switch-control house at the crest of the grade and is about to descend by gravity over the 90-ft. track scale where cars can be weighed while in motion. Weights of cars weighed are recorded electronically on a tape in the scale house and this information is passed on to the car clerk.

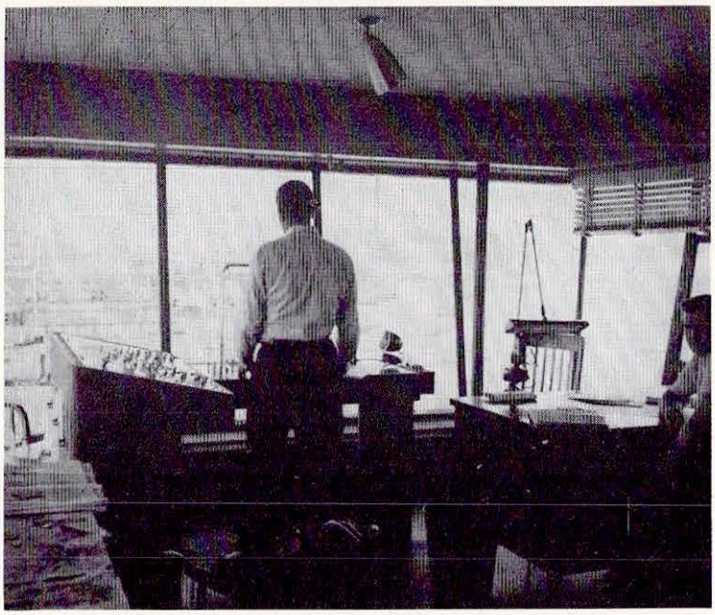
Modernized Kirk Yard . . .

How It Promotes Efficient Operation

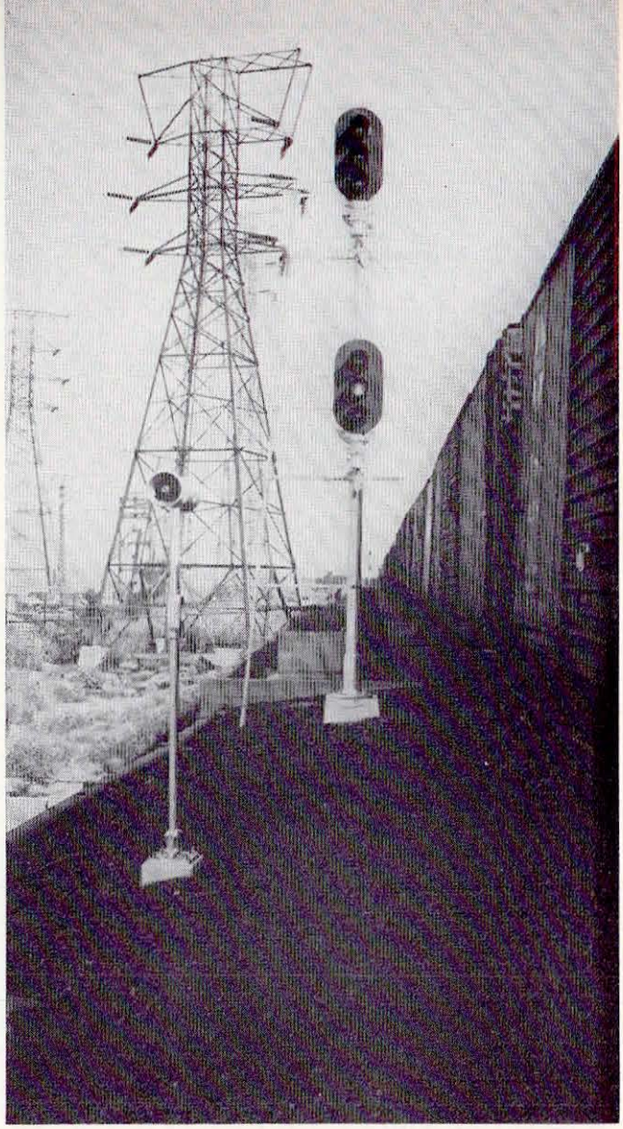
Car movements through terminal, as well as the handling of bad-orders, weighers and empties, are substantially improved



Working from a Teletype list showing the classification of cars being switched, a yard foreman sets up the switching route for each cut of cars on this control console. Four switch routes can be set and stored at one time. The microphone above the panel is to advise the pin man over a paging speaker as to the number of cars to go in each cut.



All retarders are controlled by a single operator from the upper level of the control tower. From his vantage point, the operator can regulate the speed of cars into each classification track by manipulating levers on this T-shaped control machine. He can also operate switches for trimming-engine movements.



A signal at the crest of the grade and four advance repeater signals direct train movements on the leads. This view shows one of the talk-back speakers and one of the advance repeater signals.

As brought out in the preceding article, the Elgin, Joliet & Eastern is realizing substantial operating advantages and economies as a result of the modernization of Kirk yard. To a considerable extent these can be attributed directly to the fact that the yard has been converted from a flat switching facility to a modern gravity-retarder operation. The following article not only shows how auxiliary features and facilities are contributing to the increased efficiency but tells in a general way how cars are handled through the revamped yard.—Editor

All road trains entering Kirk yard are routed through the interlocking plant at the west end. If destined to any track in the South yard (normal movement for road trains), the switches are lined up by remote control by the tower operator. If destined to the North, West or East yards, the trains are manually switched beyond the interlocking plant by the head brakeman of the train in accordance with the number shown on the track indicator. The conductor of each train drops off the waybills and consist list of his train and these are picked up by the yard clerk at the interlocking tower and sent through the pneumatic tube to the Main office.

A Dictaphone Memobelt record of the cars in each train is also sent along with the waybills. The Memobelt record is made by the yard clerk, who stands by the front windows of the interlocking tower and talks into the Dictaphone machine, announcing the car numbers, the kind of car and, if possible, whether it is a load or an empty, in the same sequence that the cars pass him. This Memobelt record is then checked in the agent's office against the waybills and consist list and changes are made as required. The correct data are then re-

corded on the Teletype so that all receiving stations have the same information.

Records by Remote Dictation

Cars originating at Buffington (a point on the main tracks to South Chicago) are carded on the north side. To read these, the yard clerk leaves the tower and stands at a point north of the incoming train. On such occasions, the clerk detaches the microphone and extension cord from the Dictaphone machine in the tower, adjusts the machine for reception from a telephone line, goes downstairs to his position north of the incoming train, and plugs his extension cord into the phone jack of the nearest electric switch machine. He can then recite the information he reads from the cards and it is recorded on the Memobelt of the machine in the tower. Floodlights, affixed to the side of the interlocking tower and on two talk-back speakers in front, permit car numbers and cards to be easily read at night.

When road engines have set their trains in the South yard, they are cut off and run around the north side of this yard to the interlocking plant where they are switched to the inbound engine lead and go to the engine terminal. Cabooses are picked up by a yard engine, backed to the interlocking plant, and, by way of the inbound engine lead, are pushed onto one of the two caboose tracks near the east end of Kirk yard. One of the caboose tracks is used solely for road crews and the other for transfer crews, which is an improvement over the old yard arrangement where the transfer and road crew cabooses were mixed indiscriminately. Road crews get more sleep with the new arrangement and the cabooses are always in the order in which the crews will be called.

Cars for outbound movement are accumulated largely in North yard. Strings of cars from this yard and from South yard are moved to the easterly classification leads from where they are pushed over the crest into the gravity-retarder yard. Four diesel locomotives are employed at the east end of the yard for these operations. One of thees (1,500 hp.) is used for pulling trains of cars from the yards toward the classification leads; two (1,000 hp. with trailer) are used for classification work; and the fourth (1,000 hp.) is used for trimming purposes. A signal at the crest of the grade and four advance repeater signals control movements on the leads.

As strings of cars move up the grade to the crest the covers of all journal boxes are lifted and oil is injected on the journal packing as the cars pass the oiling station, unless it is known that the cars are to stand for any length of time in the yard or on a mill track where opened covers would allow entry of dust and grit. Cars are inspected as they pass the car-inspection pits, where lights are available at the sides and beneath the cars for undercarriage inspection.

A yard foreman in the switch control house, working from his Teletype list, sets up the route for each cut of cars and calls out the number of cars in each cut over a paging speaker to the pin man making the cuts. Four switch routes can be set and stored at one time on the switch control panel. Two men are employed at the west end of the classification yard as skatemen.

Trains Are Made Up in Yard

Since the classification yard is also used for departure purposes, only 48 of the 58 tracks are used at one time for classification work, thus leaving two tracks for setting out bad-order cars and eight tracks for getting cars ready for outbound trains. This latter work includes coupling air hoses, charging air lines with air from lines established in the yard, making car inspections and closing journal-box covers, calling crews, and coupling on locomotives and cabooses.

Waybills are sorted in the agent's office as cuts of cars are switched into the classification yard. While cars on any track are being made ready for a train, a yard clerk makes a walking inspection and lists the car numbers in the sequence as found. Returning to the general yard office, the clerk dictates a Memobelt record of his information and sends it to the agent's office. Here, a train consist list is made and the waybills arranged accordingly. Another check, again using the Dictaphone Memobelt, of the car numbers and their sequence is made by the yard clerk located in the interlocking tower as outbound trains pull out at the west end of the yard. This Memobelt record is sent via tube to the agent's office where the information is checked against the office copy of the train's consist list. Hence, corrective measures can be taken if any car gets into the wrong train, or fails to be in the train for which it was intended.

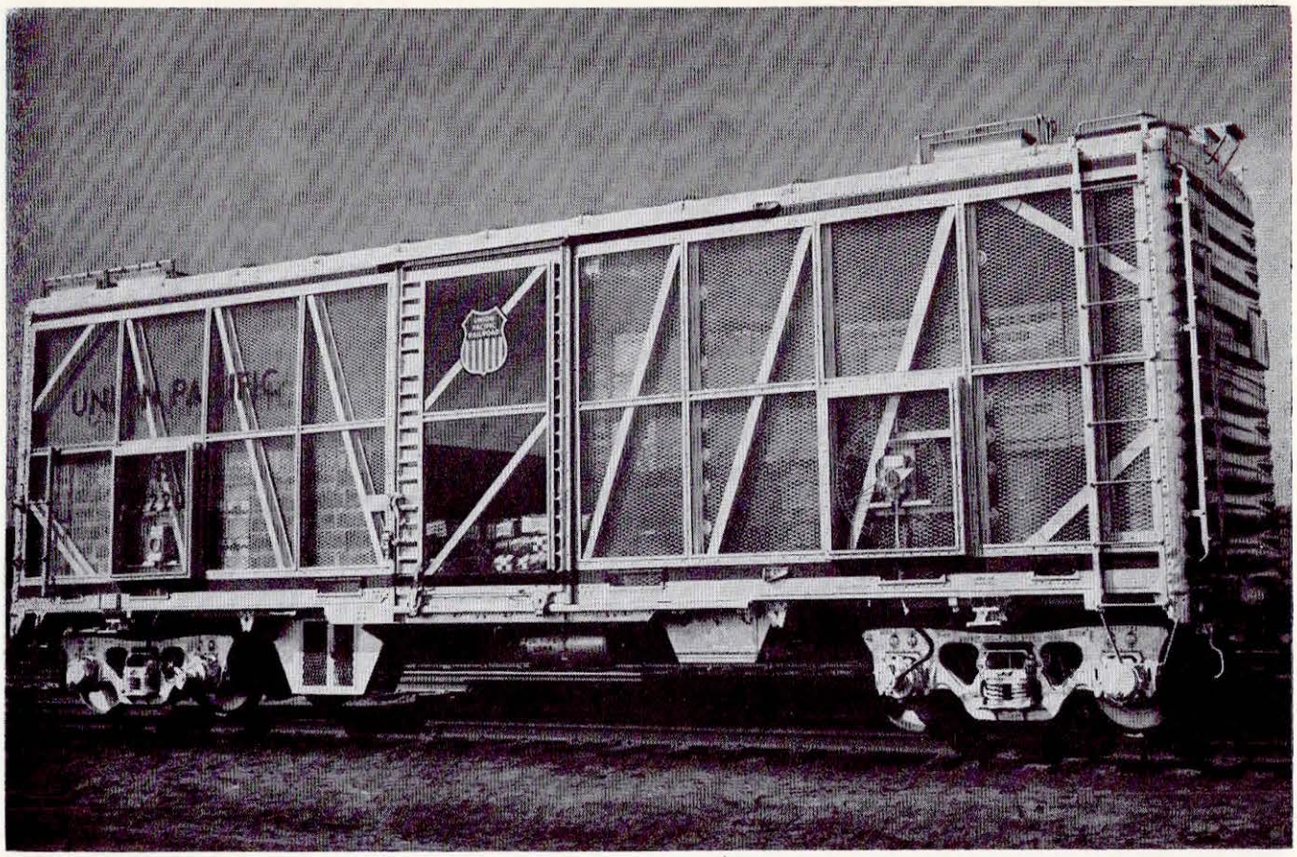
Yard Improves B. O. Handling

The rebuilt yard permits more efficient handling of bad-order cars. Formerly, trains left from five different yards and B.O. cars had to be switched out to a track provided in each yard. Then the B. O. cars—loads and empties mixed indiscriminately—were picked up and, by a slow cross-hauling movement, set out in the car-repair yard. With the new yard arrangement, two classification tracks are assigned to receive B. O. cars—one for loads and the other for empties—from where they can be easily moved each night to the car-repair yard without interfering with switching operations.

The distribution of empty cars also has been improved by the new facilities. Formerly, a yardmaster cleared his yard of empty cars by sending them to any industry that could use them. As a result, some of the larger industries were glutted with these cars while others received none. Under the present operation, the yard clerk can scan the various Teletype lists of cars and earmark certain numbers of empty cars to the various industries, thus providing a more even distribution of these cars. The empties are then switched to the industries in accordance with the earmarked list, preventing acute shortages.

The handling of cars to be weighed also has been expedited by the new facilities. With the old yard arrangement, there were two track scales, one on the north and the other on the south side of the yard, and to reach them it was often necessary to move cars by a circuitous route. After waiting their turn, the cars were weighed and then switched to the proper track. Now, the track scale is just beyond the grade crest of the switching lead, where cars are weighed while in motion and are immediately classified. The new automatic scale saves 12 hr. in the handling of "weighers" and eliminates the personnel required to man one scale.

In addition to the air lines laid from the terminal powerhouse to each track of the classification yard for train-line charging purposes, others were run to each retarder so that signal maintainers will have air available for cleaning the retarders of snow, dirt and sand. Another air line was run to the track scale to assist in keeping that facility clean. Also, all electrically operated switches, both at the east and west ends of the yard, are protected by G-E Calrod electric switch heaters.



This car is used by the Union Pacific to show railroad employees and shippers what effect bad loading and/or rough handling during switching can have on freight loaded in the car. Car side is Plexiglas. (See news pages.)

More Light on Claim Causes Results in Suggested New Prevention Activity

"Transportation and Packing Survey" indicates that length of haul is a factor in loss and damage; new department for follow-up on "repeaters" urged

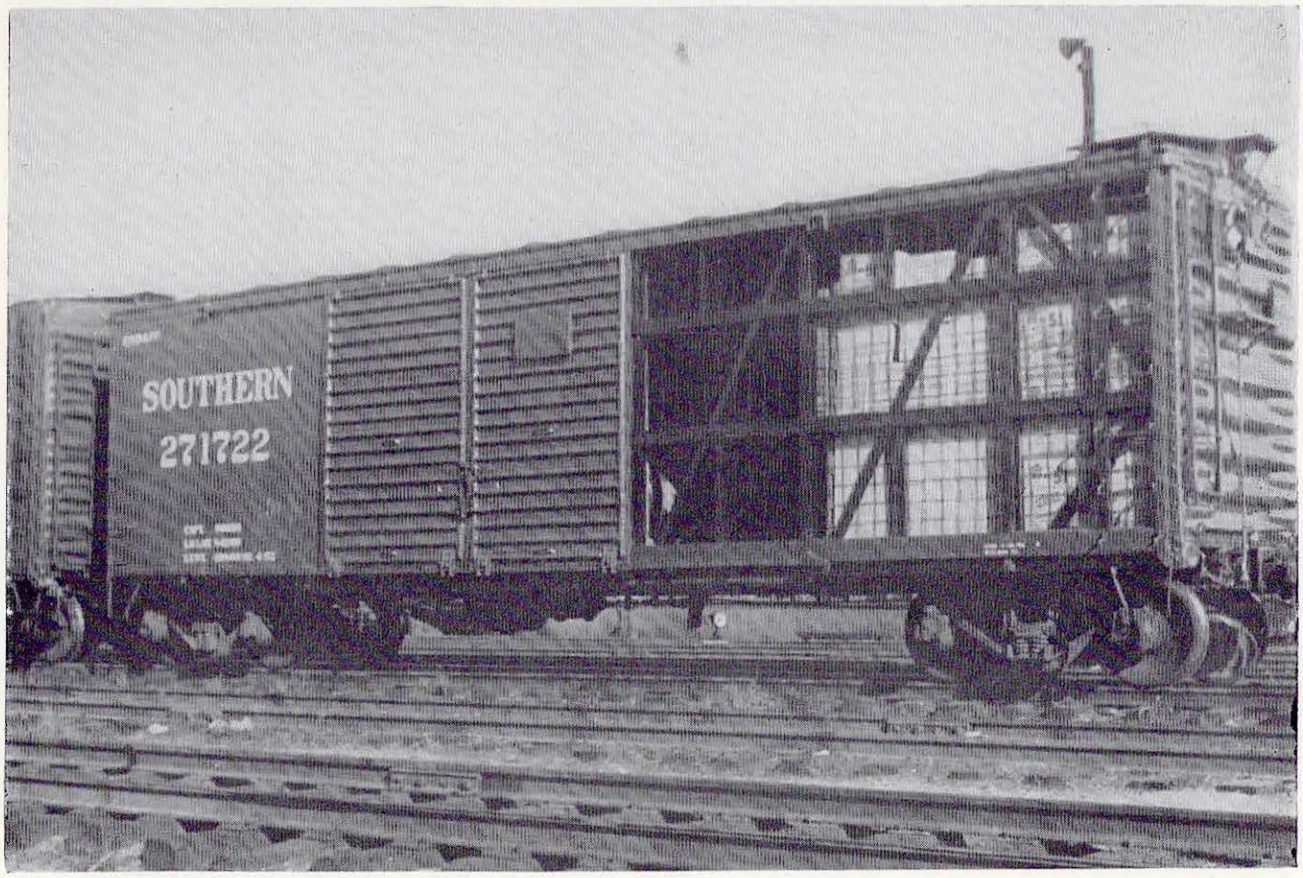
A recommendation that all future claim prevention work be divided into two distinct classifications is the result of a joint study, made by the railroads of the United States and the Fibre Box Association, of loss and damage to carload shipments of commodities packed in fibre boxes.

The report resulting from the study, an 88-page booklet entitled "Transportation and Packing Survey," says that "the current broad educational and corrective program being carried on by various railroad and shipper groups . . . should be continued"; and that individual shippers should be shown, in concrete terms, the effect of their poor loading practices and "asked to embark on a cooperative program with the railroads . . ."

To accomplish the work contemplated in the second recommendation, the report suggests that the "Freight Loss and Damage Prevention Section of the Association of American Railroads could establish a new department where data would be assembled on every carload of packaged goods. . . . Only four items of information would be required: The name and plant location of the shipper; the name and location of the consignee; the type of product; and the size of the claim." These conclusions were reached after a study of the causes of loss and damage which revealed, the report states, that the greatest proportion of the damage found was produced by a relatively small number of shippers of a few commodities.

Many Factors Analyzed

The report goes into many of the factors affecting loss and damage, including rough handling, poor stowing and bracing, and many others. It also analyzes damage



The Southern, too, uses a special car to show yard crews, particularly, the effects of rough handling on freight loaded in the car.

to commodities loaded in certain types of inner containers, the effects of some car defects in creating damage, the relationship between length of haul and damage, etc. The report gives findings on 3,440 cars which were inspected at destinations in 31 cities in various sections of the United States. The report further states, in support of the recommendations, that where shippers were contacted by the survey staff (800 letters to 300 shippers plus some personal contacts) such a good response was received that it indicated to the staff that shippers have a "real interest" in claim prevention. This reception, coupled with the findings of the study, led to the second recommendation mentioned above.

The report apparently is based upon an assumption that fibreboard containers, as set up in Rule 41 of the Uniform Freight Classification, are basically good containers. With this, some railroad prevention and claims men probably will disagree, as possibly also will some shippers and box manufacturers. Nevertheless, assuming the container is good, the report infers, here are the causes of damage.

The claim cause which bulked largest in terms of dollars per claim, as shown in the report, was poor arrangement of the load. (This includes non-segregation of different-sized containers, or of light and heavy items, failure to level a load, and "haphazard" loading.) Each car where damage was assessed due to this cause sustained a claim amounting to $40. Claims for damage due to leaky cars amounted to $35 per car, and rough handling damage was $32 per car. However, 27 per cent of all damage was attributed to rough handling, 18.6 per cent to poor arrangement of the load and 15.8 per cent to "loose loading" by the shipper. It is interesting to note that the survey teams, which consisted of a railroad representative and a representative of the Fibre Box Association, sometimes attributed damage in a single car to as many as eight causes.

Weight of Load, Length of Haul

In this project, two factors were studied about which little is heard, generally, in discussions of the causes of loss and damage: the effect of the weight of the shipment on claims; and the effect of the length of the haul on damage. For shipments under 15 tons in weight an average claim of $5 per car was experienced, while for a carload which weighed between 15 and 19 tons, the average claim was $15. Where the weight of the load was 40 tons or more the average claim was $71. As the weight of the load increased the claims ate up larger and larger parts of the revenue received for the haul. On shipments weighing less than 15 tons, 1.8 per cent of revenue received was claimed from the carrier by the shipper or consignee. This ratio gradually increased to the point where, on loads of 40 tons or more, the ratio of claims filed to revenue received was 10.4 per cent.

Generally speaking, the survey notes, as the distance a shipment traveled increased, the greater was the amount of the claim filed. For shipments moving less than 500 miles, claims amounted to $13 per car; for distances of from 500 to 1,000 miles, the claim was $25; for 1,000-2,000 miles the claim was $31; and for distances of over 2,000 miles claims averaged $81 per

A poor load made possible this sawtoothing, plus crushing of cartons on floor racks. Floor rack protection probably would have helped cut the damage.

car. Rough handling accounted for a sizeable portion of the value of these claims, with the proportion allocated to this cause rising as the distance increased. On shipments moving less than 500 miles, $3, or 23 per cent of the average claim per car, was due to rough handling, the survey reports. At distances of over 2,000 miles, $24 per car, or 29.6 per cent of the average claim, was attributed to rough handling.

Condition and Age of Cars

Railroad men have known for a long time that defective cars contributed substantially to the claim account. The findings of this survey are that defective cars inspected showed an average claim of $38 per car, including defective cars in which no damage was found. (However, 64.3 per cent of cars found defective did produce claims attributable to the car's condition.) Cars which had no defects produced an average claim of $28 per car, again including those cars in which no damage was found. (Only 53.6 per cent of non-defective cars inspected contained damaged freight.)

As reported in the "Transportation and Packing Survey," the older the car the greater was the amount of the claim produced. Cars built before 1930 sustained an average damage amounting to $34, which was 8.2 per cent of the average revenue received for transporting the load. Cars which were placed in service during the period 1930-1949 showed a claim average of $28 per car, which was 6.3 per cent of the revenue received. Cars built in 1950, or in the two years since then, showed damage amounting to $18 per car, or 4.2 per cent of the revenue received. It is interesting to note that 58.6 per cent of cars placed in service prior to 1930 showed claims, while 55.1 per cent of cars built in the 1930-1949 period were found to contain damage when inspected, and 54.8 per cent of cars built in 1950 or since then sustained claims.

Cars which were loaded with freight after the lading had been subjected to water transportation showed a much higher percentage of damage than did those which had not been transshipped. Commodities transshipped showed an average claim per car of $106, of which $63, or 59.4 per cent, was judged due to poor arrangement of the load; shift in load due to loose loading; and rough handling of boxes *during or prior to loading.* (Cars containing freight not transshipped showed damage of $27 per car.) The ratio of claims to revenue on the transshipped cars was 32.1 per cent.

CLAIM RELATION TO REVENUE RECEIVED*

Commodity	Per cent claims to revenue
Juices in tin	12.6
Miscellaneous foods in tin	11.4
Wine	9.0
Fruits and vegetables in tin	8.6
Foods and vegetables in tin and glass	7.8
Evaporated milk	6.7
Liquor	3.4

*Adapted from a table presented in "Transportation and Packing Survey."

Stowage Effects

The effects of good or poor stowage of freight in the car also were dwelt on in the report. Cars loaded loosely sustained claims amounting to $48 per car, of which $17 was attributed to this cause. It was reported also that tight loading of boxes in a car was a more important factor in cutting damage than was the load pattern. Good floor protection also was found to be useful in cutting claims, as was doorway protection. (Some kinds of doorway protection were found better than others, with steel straps and fibreboard showing up best and the Signode retaining strip a close second.) Also, as the distance a load shifts in a car becomes greater so does the claim. And when a load is good and tight in the doorway the claim on that car is apt to be only slightly more than one-third that on a car where the load condition in the doorway is loose. Where the load in the doorway is compressed, the damage is likely to exceed that in a tight load by more than four times.

Two sections of the report dealing with cause and effect in claims discuss shipping containers, both inner and outer, and show statistically how various shippers' claim experiences compare. Generally speaking, it was found that boxes whose closure was satisfactory produced only about half as much of a claim per car as did boxes where closure was unsatisfactory. Where the outer container fitted too loosely around the inner package claims were more than twice as great as where the fit was good. Also, the greater the number of different-sized boxes in a shipment the greater was the claim per car. Generally speaking, too, the larger the inner container the greater the amount of damage.

Shippers' claim experiences vary. In the evaporated milk field, for instance, where about the only thing different about the inner containers is the brand name on the labels, claims ranged from $6 per car to $20 per car for five shippers. Similar, and even greater variations were found among shippers of other commodities. This was one of the main factors leading to the recommendations mentioned above.

L. W. North, a member of the Official Classification Committee, acted for the railroads in directing the survey, while A. W. Luhrs, executive manager of the Fibre Box Association, represented that group.

"Total expenditures in the past six years for capital improvements to improve passenger service have exceeded $1¼ billion. They include 4,500 new passenger-train cars."

What Can Be Done . . .

About the Passenger Deficit?

J. P. Newell outlines to New York Railroad Club four-point program—better service, higher charges, fewer "red-ink" operations, and lower costs

"The deficit which results from our passenger-train operation is so great that it is perhaps the most serious challenge to the future solvency of the railroads."

So said J. P. Newell, vice-president—operation, of the Pennsylvania, in outlining to the New York Railroad Club, on October 16, a challenging four-point program for elimination, or at least substantial reduction, of that deficit. Those parts of Mr. Newell's speech dealing with that specific program are reprinted in the accompanying article. Earlier in his address he had analyzed the deficit —"in 1951, the staggering sum of $681,000,000"; had pointed out that "every railroad, regardless of the relationship between its passenger business and its freight business, has a vital interest in this problem which if not solved, may cause a diversion of carload freight traffic to competing forms of transportation, due to further increases in freight rates"; and had attributed the existence of the deficit to a variety of causes. Among these causes he listed "a sense of false security" developed by the "unprecedented heights" to which passenger business rose during World War II; "continually mounting" costs; the difficulty of raising fares to reflect those costs because of "the private automobile and subsidies"—particularly to air lines; mail rates which, despite postwar increases, "fall far short of the actual cost of handling and transporting"; and inadequate returns from the handling of express traffic "in full competition with a government agency—parcel post—which is subsidized by taxpayers."

What can be done to correct the situation which confronts us?

There are just four ways in which to approach this problem:

1. Improve service by heavy capital expenditures for equipment and other facilities—which the railroads have been doing—and put more passengers on the trains which we now operate.

2. Increase mail and express rates and passenger fares. In so doing extreme care must be exercised to avoid the workings of the law of diminishing returns.

3. Endeavor to discontinue unprofitable operations.

4. Further reduce the cost of our present passenger operation—when and if possible.

In considering each of these methods of approach we are confronted with major difficulties and obstacles. What are they?

Improved Service

We have been attempting [to improve service] by expenditure of many millions of dollars to acquire new passenger cars and locomotives, in addition to spending many more millions of dollars for modernization of older equipment. The railroads have made many technological improvements in their passenger equipment. All of these efforts have been designed to hold and attract passenger travel by providing additional comfort, convenience and safety. In the six postwar years the railroads have spent approximately $633 million for capital improvements to passenger-train cars—most of it for new cars. This is practically equal to the same expenditures for the preceding 24 years.

Almost one-half billion dollars have been expended for locomotives for passenger-train service. In addition, there have been major expenditures for roadway and structures to benefit passenger service. . . .

Additional passengers might also be obtained for our trains through the possible elimination of duplicate services, particularly in less populous areas. When two or more almost identical services are being provided and passenger service trains are only half filled, should not consideration be given to elimination of the duplication, even though it may mean complete elimination of service provided by one railroad? However, since the railroads are so strictly regulated, and since not only our fares but the frequency and quality of our service are subject to some degree of regulation by public bodies, sincere and vigorous action by the railroads will be required to secure any relief in this direction.

A number of railroads are studying the possibility of improved ticketing procedures to attract more passengers. It is not the whole answer, to be sure, but as a part of the whole, an improvement is desirable to the end that passengers may secure their transportation and other pertinent information through a central office with neither delay nor inconvenience. Difficulties are to be encountered at some points in changing our practices, but at others a definite step forward in this respect is indicated. On the Pennsylvania we are expecting to inaugurate an experiment along these lines within the next few months.

One definite possibility for increasing railroad travel is to lower the cost to the passenger. This can be accomplished by repeal of the 15 per cent wartime transportation tax. Here we have a tax which was imposed for two purposes—to secure revenue for government expenditures in wartime, and to discourage travel because of congestion and gas rationing. Now the railroads need travel and the automobiles are back on the highways with our former passengers. In all fairness, there is no justification for retaining this 15 per cent transportation tax. It should be eliminated with the least possible delay. No time should be lost, no efforts spared in endeavoring to accomplish this.

Lastly—service. Improvements have been effected and there has been a noticeable improvement in the morale of our employees. On our railroad we have been conducting training classes for the minor supervision and consideration is now being given to extending these classes to include our passenger trainmen—many of whom have indicated a definite interest in receiving such training. Efforts along this line must be continued. While the majority of our employees are now doing an excellent job, we must all realize that every individual on our railroad, no matter how unimportant his work may seem, can contribute to the pleasant and satisfactory trip of some passenger. Consequently, in view of the present situation, he must go beyond the normal requirements of his job to help provide a satisfactory and comfortable trip for our patrons. Carmen, coach cleaners, trackmen, ticket clerks, trainmen and engine crews all have their place in this activity. Every railroad employee must eventually realize that the patrons on our trains should be treated as guests in our homes, and much as it may offend the sensibilities of some, they must be made to realize that in most, if not all, cases, the passenger is right.

As a further step to improve our service, we on the Pennsylvania have assigned special supervisors of service to our through passenger trains. It is their duty to give personal attention to every phase of operation, maintenance and performance, as well as to problems of passengers enroute. These supervisors, permanently assigned to individual trains, coordinate the duties of the many men and women who prepare, operate and serve on the trains, and in their duties they develop acquaintances with the various passengers and obtain their suggestions and recommendations for improvements in service (*Railway Age*, October 13, page 16).

Higher Charges

In a country still dedicated to the free enterprise system, our mail rates should be sufficient to compensate us for providing the service and permit us to make a fair profit. That principle is being followed by our government in the case of one of our major competitors—which is being subsidized by receiving mail rates far in excess of the full revenue which the Post Office Department receives for handling it. . . . Why should the air lines be paid over 70 per cent of what the government receives for handling an air mail letter (4⅓ cents for a 6-cent letter), while the railroads are paid less than 7 per cent of what the government receives for handling a first-class letter (2 mills for a 3-cent letter)?

Approximately one year has passed since the increase in mail rates granted us in November 1951. Again we suggest that the railroads promptly initiate an application for an increase in mail pay to the end that proper compensation shall be received for providing this service.

Additionally, consideration might be given to flexible rates, which would eliminate the adverse effect upon railroad operation which results from the time lag between increased costs and increased rates.

Increase in passenger rates basically involves the need for relaxing the regulations under which our rates are authorized. Efforts to that end are now going forward and we are hopeful that some favorable action will be secured next year. Once that is accomplished, there is no question but that an adjustment of rates can be accomplished which will more equitably distribute passenger cost and provide increased revenue, after giving due consideration to the law of diminishing returns.

Discontinuance of Unprofitable Operations

There has been much activity in this field in recent years. On the Pennsylvania alone we have eliminated almost 55,000 scheduled passenger train-miles per day since 1946, a reduction of nearly 40 per cent. During 1952 we have been successful in eliminating over 8,600

unprofitable passenger train-miles per day. However, over 18,000, or 20 per cent, of our remaining passenger train-miles are operated at a loss on the basis of out-of-pocket cost, and more than 76 per cent of our passenger train-miles are a losing proposition, based on fully allocated cost.

Every effort to withdraw unprofitable passenger service meets with opposition. We are confonted with obstacles at every turn. Some state regulatory bodies require long, drawn-out, complicated hearings despite the obvious merits of the case under consideration. The passengers object because of the resultant inconvenience to them, giving no consideration to the fact that they would not operate their own business on such unsound economic principles as they are asking us to observe in continuing operation of unprofitable service.

To give just one example of the adverse effect of the procrastination which is encountered: On the Western region of our railroad we were successful in withdrawing 13 unprofitable passenger trains during a period of three years, after due approval by state regulatory bodies. The average time required from the time of filing our application until the hearing by the commission was 139 days. The average time from the commission's hearing until we were granted permission to withdraw the trains was 94 days. Just imagine! A total of 233 days per train, during which time the total out-of-pocket loss on these 13 trains was $425,000. There was no question in the minds of the commissioners that these trains were unprofitable—they eventually authorized their withdrawal—but it averaged over seven months to render a decision on each train. Had a 30-day period been observed, we would have saved $370,000.

Obviously, some appreciation by the state regulatory commissions of the importance of the passenger problem is in order. This must be accomplished and our petitions handled promptly on their merits and without political prejudice.

Legislation is now being considered which might alleviate this situation by vesting the Interstate Commerce Commission with ultimate decision on passenger-train abandonments. Such action is desirable and should be supported. In the meantime, we must go forward with our efforts to eliminate passenger service that is not at least earning its out-of-pocket costs.

Further Cost Reductions

Much has been accomplished in this field during recent years. Longer trains, diesel operation, improved (but costly) servicing facilities, more efficient utilization of equipment, mechanized equipment and mail handling facilities, better maintenance methods—all have contributed to a reduction in costs. However, the need, acquisition and cost of much new and very expensive equipment in the postwar years has offset many of these economies. Material costs have continued to rise and the seemingly innocuous cost-of-living increases has added 14 cents per hour to our labor costs since January 1951.

Consequently, additional reductions in operating costs are imperative. Recognizing this fact, we on the Pennsylvania, as well as our friends on the New York Central, have engaged Heller Associates to assist us in a thorough and complete study of our passenger services to determine the possibility of securing a passenger train operating ratio of not over 100.

They have been over our property for just seven months. We have developed much of interest. Improvements, economies, reduction in train consists, less costly

"What justification is there for subsidizing the handling of mail" by the air lines, while requiring the railroads "to perform mail service at a loss?"

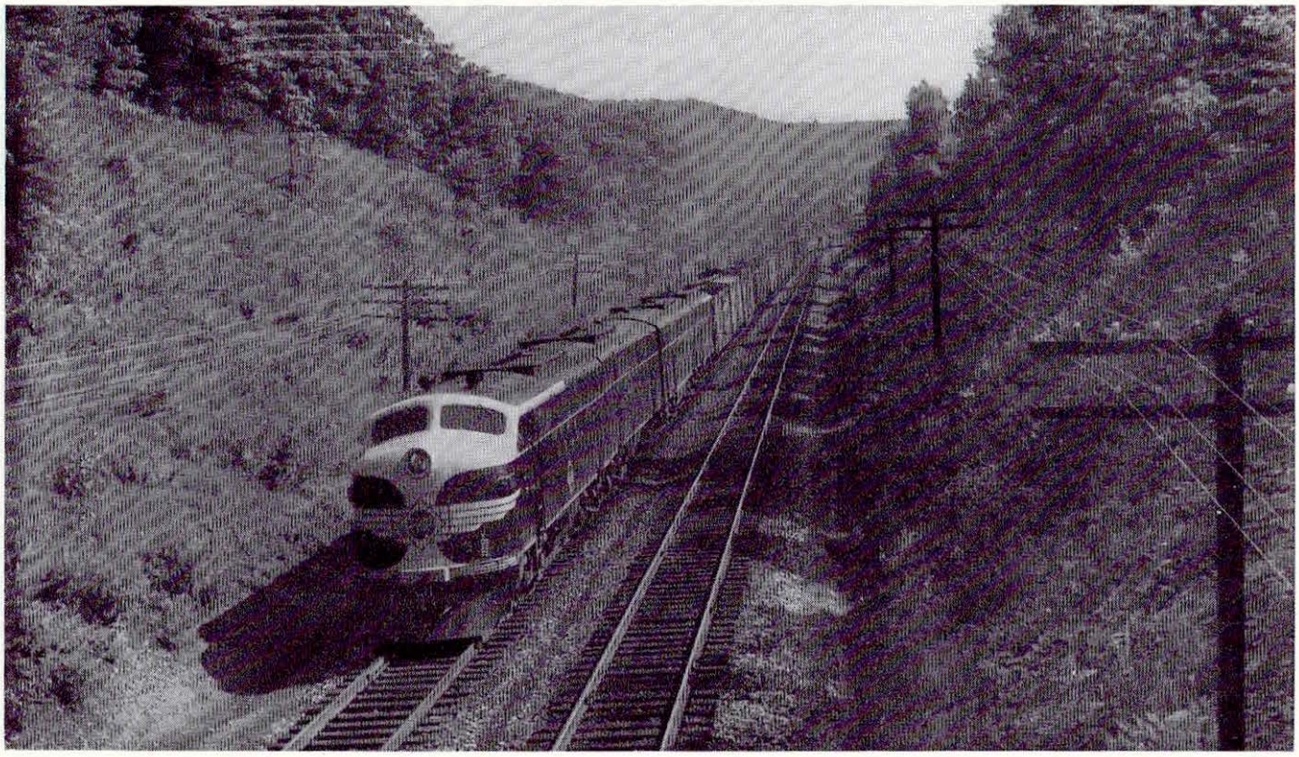
maintenance procedures, better utilization of equipment —these and other items are being studied. Although it is still too early to give any report on completed accomplishments, we are hopeful that the end results will be satisfactory.

The design and construction of our passenger equipment may possibly offer another source of economy. The Association of American Railroads is now studying this problem. When their study is complete, further consideration will have to be given to their findings by individual railroads in view of the requirements of the territories which they serve. A possible outcome may be a reduction in the number of types of passenger cars, which will permit better and more economical maintenance and reduced material inventory incident to stocking of parts.

All the processes we have been discussing have been working to some degree since the war. Unfortunately, they have not in any way solved the problem—as a matter of fact, the problem is becoming more serious. The reason for it becoming more serious is the sharp increase in the cost of labor and material in the postwar period, coincident with a falling market insofar as business is concerned. With the large gross investment in roadbed and equipment to handle passenger trains, the railroads must devise ways and means of solving this problem. Obviously, the financial structure of the railroads cannot withstand the scrapping of passenger equipment and the abandonment of facilities, with the consequent charges to profit and loss and reduction in capital account.

The railroads are the greatest producers of mass transportation. They are the backbone of the country in the transportation of both freight and people in time of war or national emergency. They must be kept healthy, and their ability to produce economical, efficient, comfortable, safe, mass transportation must be retained and improved in keeping with the times.

Those of us in the railroad industry who are charged with the responsibility in these matters fully recognize the difficulties which confront us. We are not discouraged. We will continue our efforts to produce better and safer railroad passenger transportation in the future—and endeavor to make a profit for our owners at the same time.



"The railroads . . . have gone ahead and rendered more and better service. The tremendous postwar program of improvement has been . . . an act of faith."—W. T. Faricy.

Should the I. C. C. Be "Force Draft'd" On General Rate Cases?

Conflicting views are aired at Associated Traffic Clubs of America annual meeting in St. Paul

The Associated Traffic Clubs of America—"the traffic clubs' traffic club"—held its 29th annual meeting in St. Paul, Minn., on October 20-22. Official host was the Transportation Club of St. Paul. Much of the program was devoted to an interchange of ideas on club management and the direction of local club activity. The following report details only those aspects of the program dealing with affairs of the transportation industry.—Editor

Is present regulation of interstate transportation adequate, or inadequate?"

"What is the desirability of changes in existing federal regulatory laws?"

Those questions were put to a five-man panel representing basic surface freight transportation agencies—rail, motor and waterway—and their customers, by the Associated Traffic Clubs of America. The forum was, to quote its moderator, G. H. Shafer, traffic manager of the Weyerhauser Timber Company, "a search for the opinions of all agencies toward the proper conclusion as to what type of legislation is best suited for the entire transportation industry."

From the railroad standpoint there is a four-fold problem, said panel member Warren Newcome, assistant general solicitor of the Chicago, St. Paul, Minneapolis & Omaha (Chicago & North Western system): "(1) Unnecessary and detrimental administrative time lags in general revenue rate proceedings; (2) the lack of a rule of rate making designed to insure a financially sound rail transport system; (3) application of Interstate Commerce Act fourth section restrictions to railroads but not to other types of carriers; and (4) the absence of so-called 13th section authority which would permit full realization of economies incident to discontinuance of unnecessary and unprofitable passenger trains, and the additional revenue that would result from prompt application of general rate increases to intrastate traffic. Because these problems result from inadequacy or impropriety of existing federal regulatory statutes, it would appear that they should be remedied through statutory modification or repeal."

Mr. Newcome suggested that the "injurious effects" of administrative time lags might be avoided by setting up a statutory procedure that would "permit the issuance of prompt increase authority with adequate protection to the shipping public." He mentioned two alter-

J. M. Fitzgerald

Fred E. Luebbe

E. George Siedle

R. A. Ellison

ALL RE-ELECTED

Chairman of the board: **J. M. Fitzgerald, vice-chairman, Eastern Railroad Presidents' Conference.**
President: **Fred E. Luebbe, general traffic manger, Kroger Company.**
Executive vice-president: **E. George Siedle, general traffic manager, Armstrong Cork Company.**
Secretary-Treasurer: **R. A. Ellison, manager, transportation department, Cincinnati Chamber of Commerce.**
Vice-President—Education and Research: **G. Lloyd Wilson, professor of transportation and public utilities, University of Pennsylvania.**

native proposals: (1) Advance approval of rate increases in general revenue cases upon a summary showing of the additional revenue needed—but leaving in full force and effect the commission's authority to pass finally on all rate increases; and, (2) that the commission be authorized and required to decide upon applications for general rate increases within a specified limited period. If not, the proposed increased rates would become effective immediately, but subject to later modification by the commission if that course was found to be justified.

"Either measure would give relief," he said, "but the first is perhaps preferable because of its simplicity and speed."

Speaking for the motor carriers, James F. Pinkney, general counsel of the American Trucking Associations, agreed that "there is no question but that the railroads are in need of some relief with respect to quicker action on rate increases. But they are not alone in this position. Motor common carriers need relief just as much —if not more." The solution, however, does not lie in cancellation of the commission's authority, he said, "but primarily in giving it the means to process these matters more quickly. If there are weak spots here and there, it is generally a matter of administration. The solution is not to knock out the fundamental policies written in the public interest, but to prevail upon Congress to give the commission the money and the manpower to do its job.

"To eliminate the delays now troubling the carriers, and to make the provision fair to all carriers, we believe that any such 'relief' bill should be applicable to regulated motor carriers as well as the railroads, and possibly to other transportation agencies. Such a bill should provide that carriers may file with the I.C.C. a notice of intention to increase rates accompanied by a certified statement of increased costs. The commission then could be directed to review such notices and statements and determine, within 30 days, whether they are reasonable. Upon a negative finding, the commission should modify the carrier's notice by specifying the changes required in publication of the increased rates."

This, he said, would preserve the commission's regulatory power, "essential to protect the public against unreasonable charges," while still allowing common carriers badly needed relief from rising costs.

"The Interstate Commerce Commission is conceded to be the basic quasi-tribunal institution of the United States. Don't ever take away its right to analyze, study and render a decision. If you do, you are getting uncomfortably close to soviet-style action," retorted B. M. Angell, vice-president of Stokely Foods, Inc., a shipper member of the panel.

"Don't feel that the commission should be expected to make a careful decision within 30 days. If you insist on this, you may get the kind of a decision you want—and price yourself out of the market. Matters of this kind must be subject to a fair trial. And to that there can be no shortcut. Would you want your labor organizations to come in and demand wage increases on a similar '30-day' basis?"

The problem of creating a single agency to regulate all transportation was outlined by C. H. Beard, general traffic manager of the Union Carbide & Carbon Corp. Speaking as chairman of a special subcommittee of the U. S. Chamber of Commerce's Committee on Transportation and Communications, Mr. Beard outlined the organization of such a body as proposed by his committee and by the so-called "Hoover Commission" and, again, by that commission's task force. The basic difference between the latter two proposals and those conceived by the chamber, he pointed out, was that his committee agreed "to the man" that such a body should report only to Congress. The Hoover Commission plans entail dual responsibility to Congress and to the executive branch of the government, he explained.

"No one has ever cured himself of a disease by giving it to others," said C. C. Thompson, president of American Waterways Operators, Inc. "Overregulation is probably the Virus X causing the present imagined or real indisposition of some freight and passenger carriers, so the afflicted urge the legislative doctors to infect their competitors with certain types of virus legislation." Most proposals, he said, were designed to "do something" about any other forms of transportation that compete with the railroads. "They are mostly rail-

road inspired and designed to do no good for any but that industry."

Pointing out that inland waterways handle only from three to five per cent of the total available freight traffic, he commented: "It appears ridiculous that inland water transportation is destroying the railroad industry and, therefore, should be made to pay tolls or user charges for commercial use of certain improved navigable waterways."

From the floor came this question to Mr. Thompson: "All we ever get are bigger and better tax bills. Why do you object to paying a user charge on your taxpayer-furnished right of way?" His answer: "The waterways system is primarily a defense system and its use for commercial transport is incidental to that purpose. I do not believe it is fair that these defense costs should be levied against a single form of transportation."

Atomic Locomotives?

President William T. Faricy, of the Association of American Railroads, speaking at the association's annual banquet on October 21, revealed that the day of atomic powered locomotives may not be too remote. "They are not yet in sight," he said, "but for four years now, the association has had a competent mechanical engineer duly accredited to the Atomic Energy Commission. One of his assignments is to observe, insofar as security regulations permit, the workings of the commission staff to the end that whenever atomic power becomes practically usable for locomotion, the railroads will be ready to apply it."

Mr. Faricy drew a comparison between the railroad industry of today and that of 1921—the year he first entered it at St. Paul. "Since that year, whole new industries have grown in direct competition. But the railroads have not only stayed in business but have gone ahead and rendered more and better service. The tremendous postwar program of improvement has been, on the part of the railroads, an act of faith—faith that the public and the government will come to recognize the railroads for the highly competitive industry they are rather than the monopoly they are supposed to have been; faith that railroad management will be granted greater latitude to adjust rates, fares and services to changing and flexible conditions; faith that railroads will be recognized and treated as a business, created by private investment, subject to the same economic necessities as your own line of business, and entitled to the same chance to operate on a business basis, without the added pressures of unnecessarily rigid restrictions or of government-aided competition."

More than 1,200 delegates and visitors from local traffic clubs were registered for the meeting. Membership by clubs was reported the highest in association history —181.

At regular business sessions the association:

- Issued awards to the Women's Traffic Club of Philadelphia, the Traffic Club of Newark, N. J., the Women's Traffic & Transportation Club of Seattle, and to the Traffic Club of New Orleans—in that order—for the excellence of their club publications. The judging of these publications was conducted by editors of established business journals.
- Re-elected all of its principal executive officers.
- Issued special awards for outstanding educational work in the field of traffic and transportation to A. G. Winter, assistant general freight agent, Denver & Rio Grande Western, Denver, Colo.; and C. E. Widell, traffic director, Tennessee Manufacturers Association, Nashville, Tenn. These awards are to be made to the recipients by the local traffic clubs concerned at a later date.

Letter from a Reader . . .

The Lakes Don't Freeze

NEW YORK

TO THE EDITOR:

It is with a great deal of interest that I follow information carried in *Railway Age*. The many items are most interesting and informative. However, I find it necessary to take issue with wording in the eighth paragraph of the article captioned "Record All-Rail Ore Shipments in Prospect," on page 11 of the September 15 issue.

This article, while taken from a statement by James K. Knudson, Defense Transport Administrator, should have the particular paragraph referred to clarified. This reads: "Although the steel strike has scuttled the original target goal of having 96,000,000 tons of iron ore, including Canadian ore, moved down the lakes this year, D.T.A. still hopes to see at least 76,600,000 tons moved before the *lakes freeze over.*"

This wording tends to leave a misconception in the minds of those unfamiliar with lake navigation, and leaves them with the thought all the Great Lakes are frozen over entirely, permitting no water operations of any kind.

The Ann Arbor and the Chesapeake & Ohio (Pere Marquette District) operate year 'round car ferry service between Frankfort, Mich., and Ludington, and Kewaunee, Wis., the latter port being the eastern gateway and the artery through which a great portion of the life blood of the Green Bay & Western flows, in connection with these car ferry lines, to and from the East and the Middle West and Northwest Pacific areas.

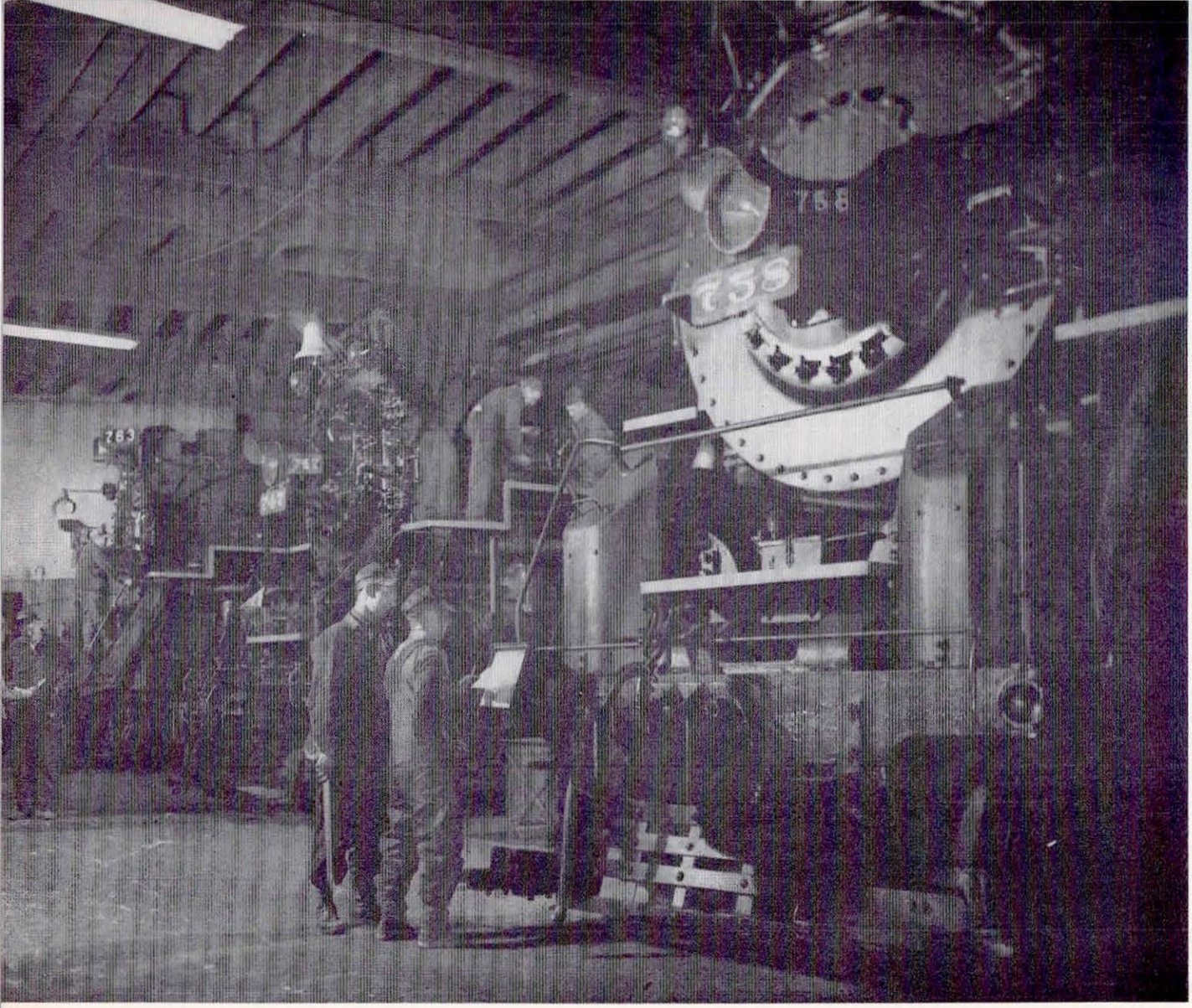
At no time, since the start of these operations, has there been a halt to traffic because of ice conditions in either lake or harbors, and there is no reason to believe there will be in future. Instead, operations continue around the clock, and around the calendar.

In my contacts with the shipping public here in the East, I have heard it mentioned on many occasions that shipments could not move across Lake Michigan during cold weather due to the lake being frozen. Nothing could be further from the facts, and although incorporated in an item generally dealing with shipments from the Lake Superior region, it does leave a certain skepticism in the minds of many as to whether or not all the lakes are frozen over and navigation suspended entirely.

With regard to the ore and coal carriers' discontinuance of winter operations, this is largely due to freezing of the locks near Sault Ste. Marie, the narrow bodies of water leading to them, and narrow bodies of water elsewhere. Also, a very substantial increase in insurance rates becomes effective on December 1, if the carriers continue to operate.

HAROLD R. OLSON
Assistant General Freight Agent,
Green Bay & Western

[We agree that the short, hard expression, "the lakes freeze over," is subject to misinterpretation, and are glad to have Mr. Olson set the record straight.—EDITOR.]



"Common sense . . . is rare and uncommon . . . hard to find . . . always commands a good price."

What Makes a Good Supervisor?

Here are some surprising answers found on one road to the question of what supervisory qualifications count most

Management-employee relationship is a matter which has not resolved itself into any hard and fast formula. It probably never will, which, perhaps, explains why industry, generally, has made a somewhat tardy start in its attempt to find answers to some of the challenging problems the subject presents.

What answers have been learned on the subject over the years and how the knowledge gained can be used to good effect by the railroad supervisor, was the subject of a paper delivered October 9 before the Chicago Railroad Diesel Club by V. E. McCoy, chief purchasing officer of the Chicago, Milwaukee, St. Paul & Pacific. In his paper, Mr. McCoy noted that there appears to be an awakening throughout the industry today to the need for applying "human relations."

If, he continued, the subject of human relations is an industrial revolution which is sweeping the country, supervisors are in the middle of that revolution. Its critical period is just ahead and may have a profound effect on the future of our way of life. We know a great deal about the tools and materials we use, but little about the personal feelings of the men and women whose energies create industrial life.

Actually, human relations is nothing more than goodwill and applied common sense, according to Mr. McCoy. He asked: "Do you know why it is called common sense? Strangely enough, it is really rare and uncommon! More often than not, it is mighty hard to find; and, when found, always commands a good price."

Just what does the boss want? How does he want it

Knowing the work is important to the supervisor, but not nearly so much as being liked by his men.

done? And what will he do or say if you do a good job?

These questions have crossed Mr. McCoy's mind, and in discussing it with other railroad officers in quite a few lines of endeavor, he found some surprising results. They almost *never* talk about:

1. How well the foreman knows his work, or
2. How well the foreman has prepared himself by education or training on the technical details of his job.

At least, those points are not uppermost in their minds when they discuss any given foreman. Rather, when a foreman is discussed, every top officer talks about:

1. How does he get along with people?, and
2. What do the men under his supervision think of him as an individual?

Mr. McCoy said that it came as something of a shock to him, and probably would to his audience, to realize that "bosses look at us a whole lot differently than we think they do." People might ask: "How about my education? Doesn't that count at all? How about my apprenticeship? My training and experience on the job? Where does that fit in?" Or they might think: "No one works harder than I do. Doesn't that count? How come I was picked as a supervisor in the first place?"

Every one of these qualifications, such as education, training, ambition, willingness to work hard, and ability, had a bearing on getting the chance to show what you can do as a supervisor. But we have to understand how and why we are rated as supervisors, or we may be due for a rude awakening some day.

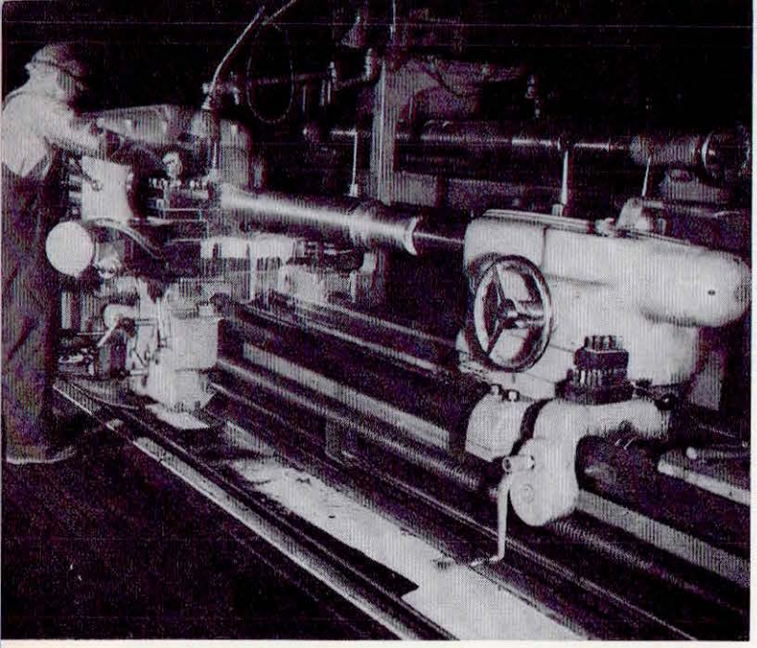
Where Supervisors Are Criticized

In every case where he encountered criticism of a foreman, Mr. McCoy said, it has taken this form: "The men do not like him!" Serious criticism of a supervisor seldom occurs because of:

1. Lack of technical knowledge of the job;
2. Lack of education on the details of his job;
3. Lack of understanding of the mechanical features of his job; or
4. Lack of ambition to do a good job.

In other words, we are all expected to have certain basic abilities—knowledge and ambition—or we would not have been considered for supervisory positions in the first place. These abilities and this knowledge are taken for granted. The important factor on which supervisors are rated is the "human factor."

One might say, "Our success is based on our ability to sell ourselves to those we supervise." Supervisors



We know a great deal about the tools we use and the materials that go into our product . . .

aren't accustomed to thinking of themselves as salesmen. The idea does not appeal to them. But think about it. Isn't it true that all they have to offer in return for their livelihood is their service? Is there anything wrong with using a little carefully planned and unobtrusive selling of those services when, by so doing, they also gain the great personal satisfaction of knowing and having it known that they are doing an outstanding job for their company? There is nothing wrong with that!

Learning some of the fundamentals that can lead to these ends can be done with almost no effort at all. Once the principles are grasped, work becomes much easier and far more enjoyable.

To get the facts clearly in mind, Mr. McCoy recalled how a supervisor is selected in the first place. An employee has a fine attitude toward his work—works hard and tries to make improvements in machines or tools or methods. He may have taken some extra schooling to learn more about his work and to prepare himself for advancement. Eventually, his attitude and his good work win him recognition, and he becomes a supervisor.

Then there is a drastic change in his way of life. He knows the work, but he no longer does it himself. He has to direct the work of others now—and get their willing cooperation in doing it. He probably feels pretty much lost at first because, unless he is the rare exception, he has had no previous training in supervisory responsibility.

It may come as a surprise to learn that in our country not one per cent of the supervisors have had training in handling men and in directing their work. They are supposed to be able to shift overnight from an hourly rated job to a position as supervisor. The chance of trouble developing under such conditions is great. The difficulty is that when a man becomes a supervisor his work changes from that of filling a single job to that of guiding the actions and thinking of from 12 to 15 people, on the average.

Because of labor conditions generally, it is not always easy to maintain production. Some employees tend to become quite independent and, with the existing competition for services of skilled workmen, turnover of employees adds materially to the problem. Supervisors, under such conditions, often try to get work done by virtue of their authority. Frequently, this causes resentment on the part of employees who are already in an independent position. Sometimes supervisors, in their earnest desire to meet work schedules, will apply methods which cause complaints and grievances on the part of employees. This results in unnecessary increases in turnover, increased costs, and failure to maintain production. Here, in Mr. McCoy's opinion, are some of the human relations problems that are bothersome to supervisors:

1. Men with insufficient training;
2. Men who are indifferent toward their work;
3. Men loafing on the job;
4. Men who disregard company rules;
5. Men who complain needlessly;
6. Men who talk too much;
7. Men who cause trouble with fellow workers around the office or plant;
8. Men who fail to plan their work;
9. Men who become discouraged; and
10. Men who leave to work elsewhere.

Solving the Supervisor's Problems

It follows, then, that a supervisor is a long way on the road toward meeting these and other problems if he knows:

1. How to explain and enforce company rules and policies, and how to make decisions in a manner that gets willing acceptance on the part of employees;
2. How to make corrections so that employees wish to do the job in the right way, and to lead the employees to *want* to do better work instead of defending the wrong actions they have taken;
3. How to handle complaints so that the company's reputation and the supervisor's goodwill are protected. and the employee kept productive even though his wishes cannot be granted;
4. How to make decisions based on reason instead of emotion;
5. How to analyze ideas preparatory to making a decision, to determine their real value, and how to consider the effect of that decision on other people and departments in the organization;
6. How to create interest on the part of the employee in his job, to the end that he wants to produce more;
7. How to get employees to live up to rules of a labor contract;
8. How to check up on work assigned so that employees welcome the check and give the supervisor the information he needs;
9. How to train employees in a minimum amount of time to do their work effectively; and
10. How to delegate responsibility within the limits of employees' ability to perform; and, in this way, encourage them to grow in their efficiency.

This list is by no means complete, but if a supervisor could do all these things satisfactorily, he would not only be in the forefront as eligible for advancement but—more than anything else—he would get the great satisfaction that comes to everyone from doing a good job.

After 10 years of polling workers, Elmer Roper reports their principal desires to be:

1. Security (the right to work continuously at reasonably good wages);
2. A chance for advancement;
3. Treatment as human beings; and
4. Dignity.

Mr. McCoy then presented in condensed form the basic idea behind a comprehensive personal training program which involves about 120 hours of work.

The first basic idea in this program is the need to recognize the fact that the other person is an individual with ideas, who wants those ideas respected. This is true whether the person concerned is an old acquaintance or one whom you are meeting for the first time. You unconsciously use this idea wherever you meet someone for the first time. If it is good then, why not use it all the time? We must recognize that the other person's personality demands that we recognize that his viewpoint is something like this:

"I am important and want to be respected:"

It makes not the slightest difference to this person at this stage of our contact that we may be very busy—that we may be important in our own eyes—or that we may happen to occupy a position of authority or responsibility with respect to the other person.

If we want to influence this other person's thinking or actions, the first thing we have to do is to show him by our appearance, by our attitude and by our first words that we do recognize the other person's idea of himself. This we can do by smiling—not being hurried or distracted—simply by giving our whole attention to this person for the time being. This will create a favorable atmosphere from which to start.

Then we must realize that our listener—having noticed by our general attitude that we appreciate him as a person—will want an assurance as soon as possible of another idea he has; that is:

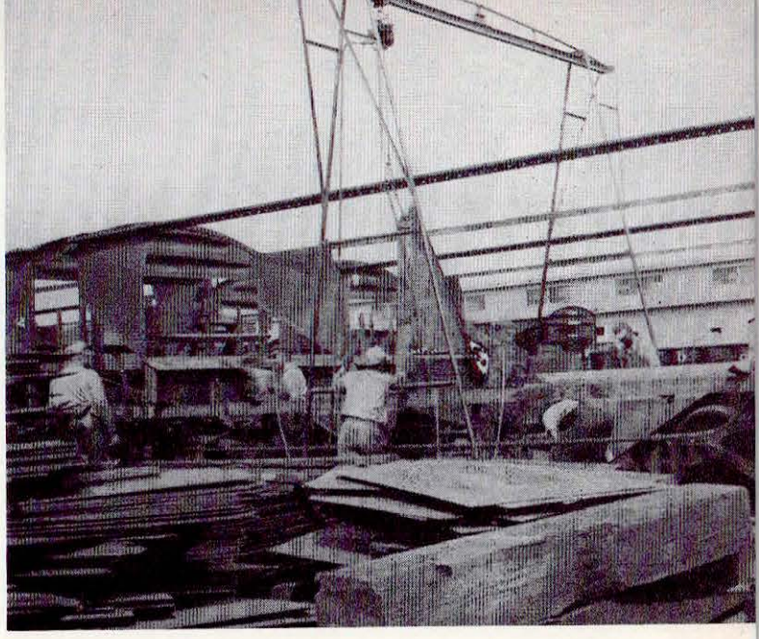
"I want my viewpoint considered:"

We do pretty well with a new acquaintance. But do we do nearly as well with people we have known for a long time? Why not? Think of the people you associate with. Some of these you feel very friendly toward, while a certain few cause you to bristle up just thinking about them. Are not the ones you feel friendly toward the ones who show you little extra courtesies in most of your contacts with them? So—if we want to be thought of as that kind of a person by others, we can, by taking time to be gentlemanly and showing some little courtesies in all our contacts. Take time for some small talk. Show very early in your conversations that you do appreciate the other person's importance and that you are prepared to respect his viewpoint.

Now this takes a little thought. It takes a little study. But the results will save time and headaches in the long run. For if you do not show the other person that you respect his importance and are prepared to consider his viewpoint, you are sowing the seeds of discontent in your personal relationship with that individual. His natural reaction—pretty well hidden in most cases—will be to force you to recognize those ideas of his, and that may involve a lot of emotion before you get through with it. In other words, he is already bristling up toward you and having done so, he isn't going to listen to any of your ideas, or orders either, for that matter.

But consider how easy he is to deal with if you do take a little time to give some thoughtful attention to this person. Having shown by a pleasant greeting and a smile that you recognize his importance he awaits your words eagerly. Then you say something casually that he recognizes as showing respect for his viewpoint—or you ask him a question that in itself is a sort of compliment to his knowledge, and you have his favorable attention. You have shown that you are his friend. Naturally, he will return this friendly feeling.

Then you are ready—not before—to get ready to present your idea. But you are not quite ready yet to tell him what your idea is. First you have to prepare his mind for a new idea. Remember—this is another individual—with a lot of pretty well established ideas



. . . but very little about the personal feelings of the people whose energies create industrial life.

of his own. Remember that he reserves the right to pass judgment on any idea you present. And remember too, that he is selfish, even as you are. He isn't interested in helping you—not yet—nor the company either. He has to understand and accept the fact that he personally will be paid off in some way wherever a new idea is involved. We aren't quite that crude, really, we say—but every person wants benefits from anything he does. So his next imaginary question which we must satisfy—if we are to make any real progress—is something like this:

"Will your idea help me and give me what I want?"

So, if you say to this person at this stage in your conversation something like this—"You will save money by . . . "You can save half your time by . . . "You will get recognition of your ability by . . .," you will arouse his interest because he will recognize desirable benefits for himself, results that he wants from his job or from life, and he will then be eager to learn what your idea is.

You present your idea from his viewpoint—you make him understand that you are trying to help him. In other words, even if you happen to be his boss, you are his friend working to help him toward his goal in life and on the job; and if you do this job well you will create automatically in his mind the following:

"What is best to do?"

and then:

"I agree."

Doing the job this way—from the listener's viewpoint—gets willing acceptance of your ideas or your leadership. It can get enthusiastic cooperation. And, above all, it can win you respect from all your associates as a real leader of men.

Our success in life will be measured largely by what others think of us. Now perhaps most of us will think this means: "What the officials think of us." Of course, that is important, but how do the officials form their opinions? That is the thing we have to know. Actually, we can demonstrate that not once in 10,000 times can a man help himself by singing his own praises. You have to get others to do that for you, and the best and most sincere boosting can come from those you supervise if you do your job right. Handling all your personal contact from "the listener's viewpoint," will do much to assure you of these results.

J. E. Tilford, president, Louisville & Nashville (right), who gave the feature address at the convention of the Communications Section, A.A.R., chats with C. O. Ellis, superintendent of communications, Rock Island, vice-chairman who presided over the session.

Communications Men Discuss "Practical Uses"

Improved railroad operation, by means of modern communications facilities, was the principal subject of discussion at the 29th annual meeting of the Communications Section of the Association of American Railroads at the Edgewater Gulf Hotel, Edgewater Park, Miss., October 21-23. The convention was attended by 458 men, representing railroads and communications manufacturers.

The convention was opened by an address by J. E. Tilford, president of the Louisville & Nashville. Reports by eight standing committees dealt with specifications, requisites, research, service records, and construction practices. Television and its application on railroads was discussed by Robert Deichert, research division, Allen B. DuMont Laboratories, Inc. Dispatcher-to-train radio was explained by F. L. Steinbright, superintendent of communications of the Northern Pacific. Railroad microwave installations were discussed by L. R. Thomas, Atchison, Topeka & Santa Fe, and C. W. Floyd and Robert Trammel, American Telephone & Telegraph Co. Loudspeaker communication systems in a large l.c.l freighthouse was explained by John L. Niesse, general superintendent of communications, New York Central System. Transistors and their effect on communications systems was explained by C. L. Rouault, electronics division, General Electric Company. A new device, the electronic multiplier for sending the same Teletype message, such as a train consist, simultaneously to several offices, was explained by G. D. Poole, assistant superintendent communications, Erie.

After arriving at the convention, J. R. Smith, assistant to vice-president, communications, of the Southern, and chairman of the section, was called away by a death in his family. In his absence, C. O. Ellis, superintendent of communications of the Chicago, Rock Island & Pacific, and vice-chairman of the section, presided at the meeting. At the opening session Mr. Ellis read a brief address which had been prepared by Mr. Smith, as follows:

"In recent years communications departments of the railroads have made great progress in installation and expansion of telephone and telegraph carrier systems, yard communication systems and radio for front-to-rear end, yard and terminal operation. A start has also been made in use of micro-wave—initially to overcome certain specific handicaps.

"Several problems are in urgent need of solution, and for which radio appears to be the most logical answer. Mention is here made of three that seem of outstanding importance.

"(1) Most railroads operate over their lines, from time to time, 'Sperry,' 'A.A.R.' or other rail-flaw detector cars, which cannot be removed from the track. These cars have to be protected by a flagman ahead on single track, and always to the rear on single or double track. The detector car is usually followed by a rather large rail replacement gang, their necessary tools, material and cars for transporting both men and equipment, the rear flagman, of course, being behind this outfit.

"These units and the flagmen are spaced at varying distances during the day's operation; at times the rail replacement outfit may be 10 miles behind the detector car, and the flagman about two miles behind the former. Maximum coordination between them is essential to avoid delays to traffic, to the rail-flaw detector car and to the rail replacement forces. Standard radio units, such as used on engines and cabooses, are satisfactory for the detector car, but self-contained transmitting and receiving sets, of considerably lighter weight, are required for the rail replacement gang and for flagmen on light motor cars.

"(2) The second problem is, basically, similar to the first. Railroads are utilizing a vast and constantly increasing amount of roadway work equipment such as ballast cleaners, on-track power tampers, rail laying cranes, etc. All of these require flag protection, and proper coordination makes communication essential between the work equipment and the flagmen, usually on foot.

"Again, standard radio units can be installed on most of this work equipment, but self-contained transmitting and receiving sets, light enough in weight to be carried by the flagmen, that will enable solid, dependable two-way communication, under all conditions over a minimum of five miles, are required to make complete coordination possible.

"Upon the solution of these two problems depends vast savings in avoiding delays to traffic, loss of a tremendous number of man-hours daily due to large gangs needlessly standing by, in many instances, to clear overdue trains, and inability to obtain full usefulness of the very expensive machines.

"(3) In 1950 the railroads suffered losses aggregating more than $12 million caused by derailments due principally to defects in or failure of cars. The preponderance of these derailments resulted from power brake apparatus, couplers, running gear, etc., coming down and dragging until derailment of the train occurred. Dragging equipment detector devices now in use, connected with automatic signals, are so expensive as to be prohibitive, except for protection at particularly vulnerable places.

"Now that front-to-rear-end radio is coming into such extensive use, the development of dragging equipment detector

devices that will transmit a tone or a recording by radio, to give instant warning to the engineer, will not only obviate a great part of these losses, but will also assist in halting the diversion of traffic to trucks, which stems from dissatisfied patrons due to loss, damage and delays to shipments. The solution of these and other problems is worthy of the best study of the communications engineers of the railroads, and of the best study and equipment development by the radio manufacturers."

Mr. Tilford's Address

The government's lack of adherence to a national transportation policy that provides for fair and impartial treatment of all forms of transport is working a serious and unfair handicap on the nation's railroads, Mr. Tilford declared in his address. Mr. Tilford said that the railroads are still being treated as a monopoly in transportation even though they must compete with other carriers that receive preferential treatment through government subsidies and other benefits.

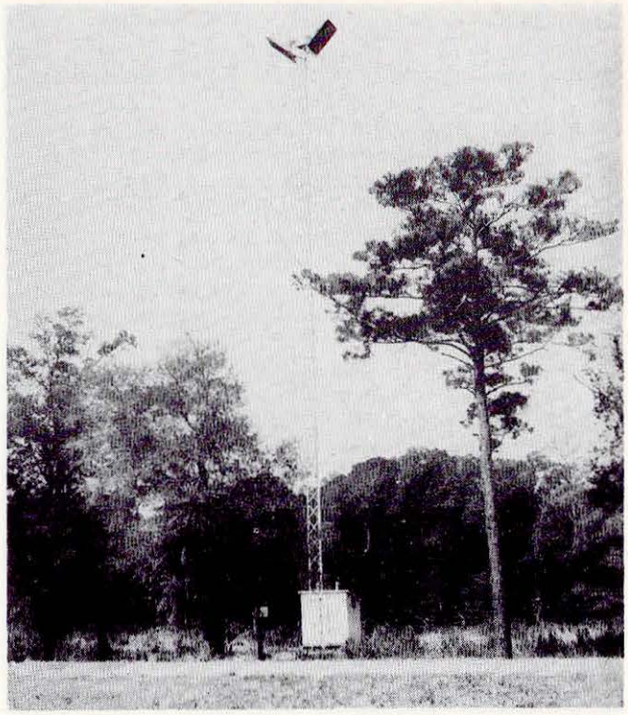
"Buses and trucks use the highways without paying any service charge; water carriers enjoy coastwise and inland water service without toll charges, and airplanes are supplied with landing fields and signal ways at a nominal rental—the cost and maintenance of all of which are furnished at government expense through public taxation," he stated, adding that: "Contrasted with these subsidies, railroads initially supply and exclusively maintain their own roadways and signal systems at their own expense, and in addition pay heavy taxes thereon."

Mr. Tilford held that railroad competitors also have an undue advantage in being less regulated by government. Present regulation of the railroads, he said, "amounts virtually to a 'managed control' by those without responsibility for results obtained and has meant a starvation economy with an income below fair return."

As examples of the impact of excessive regulation on the railroads, the L&N president called attention to the long lag in time between increases in operating costs and government-allowed increases in railroad rates and fares; the delay by states in granting such rate increases on traffic moving wholly within state borders, and the frequent refusal by state railroad authorities to allow discontinuance of unprofitable trains, even though they are little used and not necessary to public convenience.

"The ultimate solvency and salvation of our railroads demand that those having a stake in the future of railroads undertake vigorously and relentlessly to bring these facts before the bar of public opinion. I feel confident that if such be done, the traditional fairness of the American people will force those public representatives clothed with such authority to work toward a solution of the many inequalities now being inflicted upon the great railroad industry," he concluded.

Television and its utilization in railroad operations was the subject of a talk presented by Mr. Deichert. A television system's basic units are a pickup device, a transmission facility, and a monitor or viewing device. These units, plus the television image, were explained in detail by Mr. Deichert. As for applications of this new communications medium to the railroad industry, Mr. Deichert discussed the possible use of television in inspection of passing trains. This inspection could take place at several points with viewers located at a central office. Inspection cameras could be placed at the track side or under the track in pits to view the running gear and under-the-car equipment of trains. At hump yards or at the entrance to freight yards, TV cameras could be set up to view freight car numbers, and the viewer located in a central office. Cameras could also be located in towers to view overall yard operations, thus locating cars or engines for the yardmaster. TV receivers could also be installed in club cars on passenger trains.



The Atchison, Topeka & Santa Fe has completed an installation of a Philco microwave system, between Galveston, Tex., and Beaumont, 70 air-line miles, to transmit, by "beamed radio," the railroad messages formerly handled over line wires on a pole line which follows a longer route to the north of Galveston bay. Operating in the 6575-6875-megacycle super-high frequency band, the system consists of terminal stations at Galveston and Beaumont, with repeater stations at Patton, White's Ranch and Morey. The first hop is over water, the second is over swampland, and the third and fourth hops are over farm areas. Shown here is the microwave repeater station at Morey, illustrating guyed steel tower, passive reflectors and prefabricated concrete equipment shelter. The installation was supervised by L. R. Thomas, of the Santa Fe, and James L. Lee, of the Gulf, Colorado & Santa Fe, under the general direction of J. A. Parkinson, superintendent of communications for the Santa Fe system.

An experimental demonstration of the application of television to railroad operations was held at the Baltimore & Ohio's Barr yard near Chicago. Illustrated articles reporting these demonstrations were in *Railway Age* August 18, page 52, and September 29, page 13.

Microwaves Are Invisible Pole Lines

Two railroads, the Rock Island and the Santa Fe, have made installations of microwave, which is a "beamed" radio system that utilizes high-frequency energy, directed in a line-of-sight beam from point-to-point, rather than being broadcast in all directions as in radio. Microwave beams can be used to provide many channels for simultaneous transmission of numerous telephone and telegraph messages. Thus microwave can be used instead of line wires on pole lines or to act as a standby to serve in emergencies where pole lines are damaged by storms.

The Santa Fe's microwave communications installa-

tion between Beaumont, Tex., and Galveston, was described by L. R. Thomas, electronics engineer of that railroad. This system provides for eight telephone channels: (1) service channel to provide communication for field service personnel; (2) dispatcher's telephone circuit; (3) and (4) message phone circuits; (5) and (6) trunk telephone channels between Galveston and Beaumont; (7) idle; and (8) six channels of FM telegraph carrier. Mr. Thomas said that at present microwave was not a cure-all for maintenance of pole lines because (1) microwave equipment is more complicated than any other equipment used by the railroads, hence requires a higher degree of maintenance; (2) maintenance personnel must have a higher degree of training than the average service man now on the railroads; (3) problems remain concerning the dropping out of channels at repeaters for local service; and (4) there is not enough information on propagation which would provide a system with the operating degree demanded by the railroads.

Regarding signal propagation on the Santa Fe system, which operates in the 6,700-mc. range, Mr. Thomas said that they experienced signal fading over parts of Galveston bay and the Gulf of Mexico. "The effect of the earth's surface to microwave fading is extremely important . . . The general physical character of the earth's surface modifies the atmosphere through which the signal travels." Changes in the atmosphere will cause the signal (microwave beams) to bend. Thus the terrain between antennas should be such as to produce a minimum reflection. In summarizing, Mr. Thomas presented four rules for laying out a railroad microwave system: (1) Pick the section of railroad to be covered by microwave on the basis of the number of through circuits needed, least number of drops for local service, and availability of power and repeater sites; (2) path lengths between repeaters should not be more than 25 miles, and use line-of-sight operation over water; (3) guy towers so that their maximum twist will not be greater than that which would cause a 3-db. loss in signal; (4) when deciding on equipment talk to each company's engineers and inspect equipment from standpoint of ease of operation and maintenance, margin of safety in components, and ruggedness of construction.

Dispatcher-Train Radio on NP

A new train-radio installation on the NP between Fargo, N. D., and Mandan was the subject of a paper presented by Mr. Steinbright. This radio system provides the usual end-to-end, train-to-train, and point-to-point communications between wayside base stations. A new feature of this instillation is that when the dispatcher calls a train he uses his telephone circuit to a wayside station, and from the wayside station to the train, the call goes via radio. In reverse, the conductor's call goes via radio to the nearest wayside station, then over the dispatcher's telephone circuit to the dispatcher. One of the novel features of this project is that the dispatcher can call a train through attended or unattended wayside radio stations. While an operator is on duty at the wayside station, the dispatcher calls him and asks the operator to key the radio on the telephone line so that the dispatcher can call a train. When the operator goes off duty he throws a switch which allows the dispatcher to key the radio on the telephone circuit by simply operating a selector unit. The conductor, by pushing a button in the caboose, can either call the wayside operator or key the wayside radio onto the dispatcher's telephone line. The wayside stations are located about 21 miles apart, and can be used in case of the loss of line wires due to a sleet or snow storm, to provide point-to-point communications. An illustrated article about this NP installation was published in *Railway Age*, May 5, page 76.

Railroads are rapidly increasing their use of radio communication on trains and in yards. Evidence of this is that 2,607 radio stations were installed or authorized for installation by the Federal Communications Commission in the year May 1, 1951, to May 1, 1952.

RAILROAD RADIO STATIONS AUTHORIZED BY F.C.C. (IN OPERATION NOW OR UNDER CONSTRUCTION)

Type of Station	May 1949	May 1950	May 1951	May 1952
Train: Base	74	147	211	307
Train: Mobile	868	1,921	3,572	5,393
Yard & Terminal: Base	141	168	215	259
Yard & Terminal: Mobile	1,466	1,928	2,451	3,097
	2,549	4,164	6,449	9,056

Of this 2,607 increase, 1,821 are mobile stations on locomotives and cabooses, and 96 are wayside stations, all in road train communications service. Mobile radio stations in yard and terminal service grew within the year from 2,451 to 3,097, an increase of 646, and 44 fixed stations were added.

INDUCTIVE CARRIER INSTALLATIONS

Type of Station	May 1949	May 1950	May 1951	Jan. 1952
Train: Base	146	182	179	205
Train: Mobile	833	915	940	1,306
Yard & Terminal: Base	22	18	25	18
Yard & Terminal: Mobile	63	58	72	40
	1,064	1,173	1,216	1,569

The above information was contained in the report of the committee on Radio and Allied Communications, which included a list of radio and inductive communication installations on railroads. A complete list, including names of railroads, locations of stations, call letters and frequencies used, is kept up to date by L. E. Kearney, communications engineer for the Communications Section, A.A.R.

A talk-back loudspeaker system has been installed in the Springfield, Mass., freighthouse of the Boston & Albany (NYC) to facilitate the checking of l.c.l. freight. This installation was explained in an illustrated talk by Mr. Niesse. Previously checkers took their waybills with them out on the freight platforms. This arrangement required one checker for each crew. With the talk-back speakers, one checker may work with several loading crews.

The checkers, with waybills, are now located in an office in the freighthouse. Each checker has a console loudspeaker unit which contains five lines from locations on the freight docks. Crews working in the freight cars use portable talk-back speakers which are mounted on a board and can be hung on a nail in the freight car. Circuits run from the consoles (in the office) to outlets spaced at car lengths apart on the platforms. Into these outlets, the crews plug their portable speakers. The advantages of this system, according to Mr. Niesse, are that men in the car have their hands free to work, and they have to go to the speaker only once to depress the key to talk. Also checkers in the office need not wear headsets. However, he did indicate one disadvantage, in that the speakers pick up noise of general activity on the platforms.

ORGANIZATIONS

(*Continued from page* 18)
Hanna Company, will discuss the Quebec, North Shore & Labrador Railroad and motion pictures of work on the project will be shown. J. W. Buford, railroad development engineer, will assist and answer questions of a technical nature.

The second **New England Institute of Transportation** will be held on November 6, at the Sheraton Plaza Hotel, Boston, under auspices of the **Transportation Association of America.** Featuring the institute will be a transportation panel consisting of Jennings Randolph, assistant to president, Capital Airlines; Gordon C. Locke, executive secretary, Committee for Pipe Lines; Paul W. Johnston, president, Erie; Chester C. Thompson, president, American Waterways Operators, Inc., and H. D. Horton, chairman of the board, Associated Transport, Inc. Questioning the panel at the luncheon session of the meeting will be Harry E. Umphrey, president, Aroostook Potato Growers, Inc.; E. C. Johnson, Sr., chairman of the board, H. A. Johnson Company; R. E. Thomas, manager of railroad investments, Keystone Custodian Funds, Inc.; Erwin D. Canham, editor, Christian Science Monitor, and William H. Day, manager, transportation department, Boston Chamber of Commerce. George P. Baker, professor of transportation, Harvard Business School, will serve as moderator, and J. C. Richdale, as toastmaster. Among subjects listed are rate regulation, economic regulation of contract carriers, abandonments, and public aid.

The **Transportation Association of America,** the **Denver Chamber of Commerce** and the **Mountain States Association** will jointly sponsor an Intermountain Transportation Institute to be held at the Cosmopolitan Hotel, in Denver, on November 10. George M. Hopfenbeck, vice-president and treasurer of the Colorado Milling & Elevator Co., is general chairman. Frank C. Rathje, president of the T.A.A., will preside at a luncheon, at which A. L. Hammell, president of the Railway Express Agency, and J. L. Burke, president of the Service Pipe Line Company, will be guest speakers. In addition to spokesmen for chambers of commerce and other organizations, the following are among those scheduled to participate in discussions during the all-day session: George P. Baker, professor of transportation, Harvard Business School; Charles W. Braden, general traffic manager, National Distillers Products Corporation; Donald Conn, executive vice-president, T.A.A.; F. G. Gurley, president, Atchison, Topeka & Santa Fe; John B. Keeler, consultant, Koppers Company; Wilson McCarthy, president, Denver & Rio Grande Western; F. J. Melia, assistant western general counsel, Union Pacific; H. C. Murphy, president, Chicago, Burlington & Quincy; Paul J. Neff, chief executive officer, Missouri Pacific; Lee R. Pritchard, master Colorado State Grange; Lowe P. Siddons, traffic manager, Holly Sugar Corporation; and Earl B. Smith, vice-president and director of traffic, General Mills, Inc. Representatives of highway, water and air carriers are also on the program.

The **Traffic Club of Brooklyn** will hold its next meeting on November 6 at the Hotel Granada. Election of officers for the club year 1952-53 will feature the meeting.

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in October

Domestic equipment orders for 49 diesel units, 3,387 freight-train cars and 10 passenger cars were reported by individual purchaser in *Railway Age* in October. Estimated cost of the diesel units is $7,300,000; of the freight-train cars, $24,921,000; and of the passenger cars, $1,500,000. An accompanying table lists the orders in detail.

During the first 10 months of 1952, *Railway Age* has reported domestic orders by individual purchaser for 1,126 diesel units and 15 steam and 10 electric locomotives costing an estimated $179,776,000; 31,581 freight-train cars costing an estimated $199,647,000; and 415 passenger-train cars costing an estimated $51,218,016.

GN To Spend $26.4 Million For Rolling Stock, Track

Directors of the Great Northern have authorized capital expenditures of $26.4 millon for 1953.

The road will acquire 25 new locomotives at a cost of more than $6 million; 1,000 new freight cars at a cost of $7.2 million; new shop equipment and other equipment costing $1.1 million. Expenditures for track improvements will amount to $12 million and will involve purchase and laying of 50,000 tons of new 115-lb. rail.

The locomotives to be acquired include four 6,000-hp. freight, 16 road switchers of 1,500 hp. each and five switchers of 1,200 hp. The new freight cars will include 500 steel box cars (to be built in company shops), 200 flat cars plus 300 heavily insulated refrigerator cars for the subsidiary Western Fruit Express, at a cost of $2.8 million, $1.4 million and $3 million, respectively.

LOCOMOTIVES

The **Southern** has ordered 30 diesel units costing approximately $5,000,000, for delivery early next year. Orders were placed with the Electro-Motive Division of General Motors Corporation and the American Locomotive-General Electric Companies. Harry A. Debutts, president, said receipt of these units will completely dieselize the Southern system.

SIGNALING

The **Chicago & North Western** has ordered equipment from the General Railway Signal Company for five sets of intermittent-inductive train control for installation on diesel locomotives.

DOMESTIC EQUIPMENT ORDERS REPORTED IN OCTOBER

Locomotives

Purchaser	No.	Type	Issue Reported	Builder
L&N	4	1,500-hp. "B" Freight	Oct. 20	Electro-Motive
	30	1,500-hp. Gen. Purpose	Oct. 20	Electro-Motive
	2	1,200-hp. Switching	Oct. 20	Electro-Motive
	2	1,600-hp. "A" Freight	Oct. 20	American-G.E.
	7	1,600-hp. Rd.-Sw.	Oct. 20	American-G.E.
	4	1,000-hp. Switching	Oct. 20	American-G.E.

Freight Cars

B&O	2	125-ton Flat	Oct. 27	R.R. Shops
	1	86-ton Flat	Oct. 27	R.R. Shops
C&NW	100	70-ton Ore	Oct. 27	Bethlehem Steel
DM&IR	500	70-ton Ore	Oct. 20	Pullman-Standard
IC	30	70-ton Cov. Hopper	Oct. 27	Pullman-Standard
I-GN	500	50-ton Box	Oct. 6	MP Shops
LV	100	70-ton Hopper	Oct. 20	Bethlehem Steel
Merchants Despatch Transportation Corp.-Northern Refrig. Line	1,000	40-ton Refrigerator	Oct. 20	Despatch Shops, Inc.*
MP	2	Flat	Oct. 20	R.R. Shops
Reading	1	245-ton Flat	Oct. 20	R.R. Shops
	1	125-ton Flat	Oct. 20	R.R. Shops
StLB&M	500	50-ton Box	Oct. 6	MP Shops
TP&W	25	50-ton Box	Oct. 20	Pullman-Standard
	25	50-ton Box	Oct. 20	Amer. Car & Fdy.
Union Tank Car Co.	600	50-ton Tank	Oct. 20	Co. Shops

*At East Rochester, N.Y. Builder incorrectly designated "M.D.T. shops" in *Railway Age* October 20.

Passenger Cars

C&EI	10	Coach	Oct. 6	Budd

The **Hudson & Manhattan** has ordered from the Union Switch & Signal Division of the Westinghouse Air Brake Company material to install new electro-pneumatic interlocking facilities at Caissons 1, 2 and 3, upper and lower levels, south of Hoboken, N.J., station. The new interlockings will be remotely controlled from a route type machine which will be installed at Hudson Terminal in New York. For normal direction of traffic, switches and signals will be controlled automatically by a train-identification system superimposed upon the route control. The order includes electro-pneumatic switch machines and train stops, subway-type signals, relays, rectifiers, transformers and housings. Field installation will be handled by the railroad.

The **Louisville & Nashville** has ordered from the Union Switch & Signal Division of the Westinghouse Air Brake Company material to install car retarders and automatic switching at the new 56-track Radnor classification yard, near Nashville, Tenn. The order includes style K-50 control panels, model 31 car retarders, direct-acting electro-pneumatic switch machines, hump and trimmer signals, test panel, plug-in relays and racks, rectifiers, transformers, dragging equipment detectors, skates, housings and cab signal equipment. Field installation will be handled by railroad forces.

The **Union Pacific** has ordered from the Union Switch & Signal Division of the Westinghouse Air Brake Company material to equip tracks for cab signal operation on 176 miles of double track between Green River, Wyo., and Ogden, Utah. The order includes N-2 and P-5 color-light signals, code transmitters, relays, rectifiers, transformers, motor car indicators, and housings. Field installation will be handled by railroad forces.

The **Virginian** has ordered equipment from the General Railway Signal Company for installation of centralized traffic control between Elmore, W. Va., and Gilbert.

SUPPLY TRADE

Ralph E. Covey has been appointed assistant traffic manager of the **American Sugar Refining Company,** with headquarters at 120 Wall street, New York. Mr. Covey formerly was traffic manager for the Sylvania division of the American Viscose Corporation, at Fredericksburg, Va.

The **Worthington Corporation** has set up a new division, to be known as the mechanical power transmission division, to handle Multi-V-Drives, formerly manufactured at the Buffalo, N.Y., and Wellsville plants, and All-speed Drives, formerly manufactured at the Holyoke, Mass., plant. Headquarters for sales, engineering and production of this equipment have been consolidated at the Oil City, Pa., plant, and sales functions are under direction of **D. E. Tessendorf.**

Harold H. Shincel, who has been appointed executive vice-president and general manager of the Consolidated Car-Heating Company. Mr. Shincel formerly was a member of Barrington Associates, Inc., consulting engineers of New York, and was consultant to the Third Avenue Transit, and Union Pacific, the New York Central and other carriers.

Roy A. Noble has been appointed supervisor of extruded and stainless products sales by the National Tube division of the **United States Steel Company,** with headquarters at Gary, Ind.

Whitford A. Baldwin has been appointed manager of the Unit-Load department of the Acme Steel Products division of the **Acme Steel Company,** with headquarters in Chicago.

Whitford A. Baldwin

Mr. Baldwin joined the parent company in 1929, after serving in various sales and management capacities in the lumber industry. With Acme, he has been a salesman, special representative, and acting sales manager for the central sales area, and, in 1950, was appointed district sales manager at Kansas City, Mo.

Allen J. Arnold has been appointed special railway representative for **Oakite Products, Inc.,** New York, to assist in coordinating activities of the company's technical field service staff on railroad cleaning operations, with headquarters in Pitts-

Allen J. Arnold

burgh. Mr. Arnold joins Oakite after 21 years with the Baltimore & Ohio, with which road he worked in a supervisory capacity as mechanical department inspector and instructor and, for the past 10 years, as diesel locomotive department supervisor.

H. L. Weinberg, chief engineer of the **American Locomotive Company** since March 1950, has been appointed director of engineering to suc-

H. B. Chamberlain, who has formed the H. B. Chamberlain Corporation, with offices at 11 West 42nd Street, New York, to handle railroad sales and service of Flexotex composition flooring, Dorex air recovery equipment, Kno-Draft air diffusers, rubber seal tape and Carduck treated canvas. Mr. Chamberlain formerly was vice-president in charge of sales for the Tuco Products Corporation.

ceed **John Thomas,** who has been assigned to the administrative staff of **P. T. Egbert,** vice-president. Mr. Weinberg, who will be in charge of all product development and engineering in the locomotive division at Schenectady, joined Alco in 1944. He formerly was assistant engineer in the equipment electrical engineering division of the New York Central and, earlier in his career, worked as equipment electrical engineer for the Union Pacific and manager of diesel locomotive service for the Baldwin Locomotive Company.

H. L. Weinberg

W. G. Felton, formerly assistant general traffic manager of the **Pittsburgh Steel Company,** has been appointed general traffic manager, to succeed **Richard N. Shields,** who resigned to join the Pittsburgh & West Virginia as executive vice-president. Mr. Felton began his career in the freight traffic department of the Pennsylvania and subsequently was appointed traveling freight agent. He joined the consolidated traffic department of the U.S. Steel Corporation in 1945 and was transferred to the eastern traffic manager's office in 1946. He was appointed assistant general traffic manager of Pittsburgh Steel in 1950.

W. G. Felton

OBITUARY

George L. Mayer, who retired in 1949 as eastern district sales manager of the Duff-Norton Manufacturing Company, died recently.

CONSTRUCTION

D.T.A. Reviews Its Record On Transport Construction

The Defense Transport Administration announced October 23 that it has approved construction of 1,697 projects, valued at $904,194,553, since receiving its first allotment of controlled materials in the fourth quarter of 1951.

These projects involve transportation, storage and port facilities. D.T.A. explained that they are in addition to the better known programs for construction of such equipment as freight cars, locomotives, trucks and barges.

Projects approved since the last quarter of 1951, through the first of September 1952, have been lumped into broad categories by D.T.A. Those including substantial railroad construction are as follows:

Passenger and mail handling facilities, 59 projects—$138,294,492.

Railroad track extension or relocation, 151 projects—$117,937,077.

Repair shops and facilities, 193 projects—$84,377,098.

Signals, 136 projects—$77,774,464.

Yard change and expansion, 61 projects—$50,865,936.

Bridges, 119 projects—$42,643,665.

Operating facilities—coal, oil, water, sand ice, 148 projects—$17,965,107.

Railroad freight handling facilities, 23 projects—$6,369,670.

Transportation safety devices, 110 projects—$5,963,614.

Communications, 53 projects—$4,282,455.

Buildings—operating, 54 projects—$3,801,921.

Miscellaneous railroad facilities, 40 projects—$2,343,640.

FINANCIAL

New Securities

Division 4 of the I.C.C. has **authorized:**

CENTRAL OF NEW JERSEY.—To assume liability for $2,895,000 of equipment trust certificates, to finance in part 23 diesel units costing an estimated $3,555,360 (*Railway Age*, October 6, page 131). Division 4 approved sale of the certificates for 100.5173 with interest at 3½ per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds to the road approximately 3.45 per cent. The certificates, dated October 1, will mature in 15 annual installments of $193,000 each, beginning October 1, 1953. They were reoffered to the public at prices yielding from 2.45 to 3.15 per cent, according to maturity.

ST. LOUIS, BROWNSVILLE & MEXICO.—To assume liability for $2,450,000 of series EE equipment trust certificates, to finance in part 500 new box cars costing an estimated $3,100,000. (*Railway Age*, September 29, page 55). Division 4's report approved sale of the certificates for 99.4105 with interest at 3⅛ per cent—the bid of Halsey, Stuart & Co. and five associates—which will make the average annual cost of the proceeds to the road approximately 3.28 per cent. The certificates, dated October 15, will mature in 10 annual installments of $245,000 each, beginning October 15, 1953. They were reoffered to the public at prices yielding from 2.35 to 3.25 per cent, according to maturity.

Security Price Averages

	Oct. 28	Prev. Week	Last Year
Average price of 20 representative railway stocks	61.81	62.11	53.12
Average price of 20 representative railway bonds	92.16	91.98	91.38

Dividends Declared

CLEVELAND & PITTSBURGH.—7% guaranteed, 87½¢, quarterly; 4% special guaranteed, 50¢, quarterly, both payable December 1 to holders of record November 10.

ILLINOIS CENTRAL.—$1, quarterly, payable December 15 to holders of record November 17.

PENNSYLVANIA.—50¢, payable December 1 to holders of record November 3.

SOUTHERN.—common $1; preferred, $1.25, both payable December 15 to holders of record November 14.

WESTERN PACIFIC.—75¢, quarterly, payable November 17 to holders of record November 3.

RAILWAY OFFICERS

EXECUTIVE

Malcolm W. Roper, freight traffic manager of the WESTERN PACIFIC, has been appointed assistant vice-president in charge of traffic, with headquarters as before at San Francisco.

Mr. Roper entered railway service in 1923 in the general freight office of the WP at San Francisco, advancing through various positions to chief rate clerk. In 1931 he became traveling freight and passenger agent at Seattle, in 1936 assistant general freight agent, and in 1937 assistant freight traffic manager. He was appointed freight traffic manager in 1941.

Malcolm W. Roper

G. B. Moser has been appointed president of the PITTSBURGH & OHIO VALLEY, a subsidiary of the Pittsburgh Coke & Chemical Co., at Pittsburgh;

Mr. Moser was formerly trainmaster of the PITTSBURGH, CHARTIERS & YOUGHIOGHENY at McKees Rocks, Pa.

FINANCIAL, LEGAL & ACCOUNTING

Charles Clark, general attorney of the SOUTHERN, at Washington, D. C., will retire on November 1 after more than 34 years of service, and will be succeeded by **Arthur J. Dixon,** commerce counsel.

George S. Stott, freight claim agent of the RUTLAND at Rutland, Vt., retired on October 31, after 55 years of railroading, 52 of which were with the Rutland.

Leo Manville, assistant to general counsel of the NEW YORK CENTRAL, has been appointed assistant general counsel, with headquarters as before at New York. **Samuel H. Hellenbrand,** tax attorney, has been named general tax attorney. Mr. Manville, a native of Cedar Falls, Iowa, joined the NYC as a stenographer in the law department, and became an attorney in 1923. He was named assistant general attorney in 1933 and assistant to general counsel in 1951.

B. D. Martin, general auditor of the CHESAPEAKE & OHIO at Richmond, Va., has been appointed general auditor — system at Cleveland. **C. E. Weaver, Jr.,** auditor of revenues of the Chesapeake district, has been appointed general auditor of that district, with headquarters as before at Richmond. **A. L. Engwall** has been appointed general auditor of the Pere

B. D. Martin

Marquette district at Detroit. The position of auditor in charge at Detroit, formerly held by Mr. Engwall, has been abolished. **Charles Lay,** assistant auditor disbursements, has been appointed staff assistant—audits, with headquarters as before at Detroit. **J. F. Andrews** has been named assistant general auditor and **R. R. Stant,** auditor of revenues, both at Richmond. The positions of special auditor, formerly held by Mr. Andrews, and auditor of capital expenditures, formerly held by Mr. Stant, have been abolished. **A. C. King** has been appointed assistant auditor disbursements at Detroit.

Mr. Martin was born on March 1, 1893, at Huntington, W. Va., and entered railroad service in August 1916 with the C&O as a secretary, subsequently serving as accountant, assistant supervisor of the material accounting bureau, assistant supervisor of the central timekeeping and material bureau and supervisor of the latter bureau. He was appointed assistant auditor of disbursements in February 1942, director of personnel statistics in March 1947, auditor of disbursements in February 1948, acting assistant comptroller of the Chesapeake district in 1950, and general auditor of the Chesapeake district at Richmond in September 1950.

OPERATING

Marshall S. Johnson, superintendent of transportation of the RAILWAY EXPRESS AGENCY, has been appointed assistant to general manager — transportation at New York.

TRAFFIC

T. J. Younker, general freight agent of the BALTIMORE & OHIO, has been appointed assistant freight traffic manager, with headquarters as before at Cincinnati, succeeding **Walter M. Haenssel,** whose promotion to freight traffic manager was reported in *Railway Age*, September 24, page 58. **C. E. Brenner,** commerce agent, has been appointed assistant general freight agent, with headquarters as before at Cincinnati, succeeding **J. E. Steele,** who was promoted to general freight agent at Cincinnati, replacing Mr. Younker. **P. B. Jones,** district freight agent at Dayton, Ohio, has been appointed division freight agent at Vincennes, Ind., succeeding **H. D. Stange,** who has retired after more than 52 years of service. **Slade Freer, Jr.,** succeeds Mr. Jones at Dayton.

Mr. Steele was born at Coal Glen, Pa., on August 15, 1895, and entered railroad service on September 14, 1914, with the Buffalo, Rochester & Pittsburgh (now B&O), serving successively as night ticket clerk, chief clerk, cashier, special representative, chief clerk, traveling car agent, traveling freight agent, commercial freight agent and district freight agent, at various points. In February 1932 he was appointed division freight agent of the B&O at Rochester, N.Y., subsequently transferring to DuBois, Pa., Connellsville, Pa. and Newark, Ohio. Mr. Steele was named assistant general freight agent at Cincinnati on October 1, 1945.

Herbert A. Helstrom, Western freight agent of the ATLANTIC COAST LINE, has been appointed general Western freight agent, with headquarters as before at Chicago. **Fred C. Lyon,** assistant to general freight agent, has been appointed assistant general freight agent, with headquarters as before at Wilmington, N. C. Mr. Helstrom, a native of Chicago, entered the service of the ACL as traveling freight agent at Chicago on August 1, 1917. Since that time he has held the positions of commercial agent, general agent and Western freight agent, all at Chicago.

Marshall E. Boyd, assistant freight traffic manager of the WESTERN PACIFIC, has been appointed freight traffic manager, with headquarters as before at San Francisco, succeeding **Malcolm W. Roper,** who has been named assistant vice-president in charge of traffic. **Charles K. Faye,** manager of perishable freight service, succeeds Mr. Boyd as assistant freight traffic manager. **John D. Still,** commercial agent at New York, has been appointed general agent there.

Marshall E. Boyd

Mr. Boyd began his railroad career as assistant to superintendent of the Pullman Railroad in Chicago in 1924. From 1930 to 1937 he was with the rate department of the Elgin, Joliet & Eastern, joining the WP as assistant general freight agent at San Francisco in 1937. He was appointed assistant freight traffic manager in 1940.

Mr. Faye entered railroad service in 1931 as a traffic representative of the WP. In 1936 he was appointed general agent, in 1942 assistant to general manager, and in 1946 manager of perishable freight service.

Dale H. Reubish, general agent of the MINNEAPOLIS, NORTHFIELD & SOUTHERN at Fargo, N. D., has been transferred to Minneapolis.

J. B. Wright has been appointed general agent of the ST. LOUIS-SAN FRANCISCO at Macon, Ga.

H. C. Mitchell, traffic manager of the VIRGINIAN, has been appointed general traffic manager, with headquarters as before at Norfolk, Va. **J. S. Branch,** assistant traffic manager, has been appointed traffic manager. **N. F. Cuthriell,** general coal freight agent, has

been appointed coal traffic manager. The positions of assistant traffic manager and general coal freight agent have been abolished.

J. W. White, Jr., has been appointed industrial agent of the NASHVILLE, CHATTANOOGA & ST. LOUIS at Nashville, Tenn.

William B. Futral, freight traffic manager, has been appointed general freight traffic manager of the CHICAGO, ROCK ISLAND & PACIFIC, effective November 1, with headquarters in Chicago. Mr. Futral succeeds **John M. Spann,** whose appointment as assistant to president in charge of Texas territory, with headquarters in Fort Worth, was announced in *Railway Age* October 20. **Elden A. Tharp,** freight traffic manager, rates and divisions, has been appointed assistant general freight traffic manager succeeding Mr. Futral. **Arvid C. Mattson,** general freight agent, has been appointed assistant freight traffic manager, succeeding **John E. Capps,** who has been named freight traffic manager, rates and divisions. **Walter C. E. Carlson,** assistant general freight agent, has become general freight agent, succeeding **Lloyd L. Thoms,** who has been appointed assistant freight traffic manager, a newly created post. Biographies and photographs of Messrs. Futral and Tharp were published in *Railway Age* December 10, 1951, page 79.

Mr. Mattson entered railroad service in 1913 as an office boy for the Rock Island at Kansas City, and progressed through the traffic department, holding various rate and clerical positions, until 1925, when he was appointed chief clerk in the rate department. In 1939 he was appointed assistant general freight agent at Kansas City, becoming general freight agent in 1945. In 1951 he was appointed general freight agent at Chicago.

Mr. Thoms joined the Rock Island as chief clerk in the San Francisco traffic office in 1937, rising to traffic representative, and then to general agent in district offices at Cleveland and Washington before going to Chicago in 1946 as general freight agent.

Mr. Carlson started as a waybill sorter in the Rock Island accounting department in Chicago in 1921. He held a number of minor positions in that department until 1924, when he was transferred to the traffic department as a divisions clerk. He held numerous rate positions in the traffic department until 1948, when he was appointed assistant general freight agent at Chicago.

MECHANICAL

George S. West, general superintendent motive power of the Eastern region of the PENNSYLVANIA, has been appointed assistant to general manager, with headquarters as before at Philadelphia. **H. H. Haupt,** general superintendent motive power of the Central region at Pittsburgh, succeeds Mr. West at Philadelphia. **Harold C. Wright,** general superintendent motive power of the Western region at Chicago, succeeds Mr. Haupt at Pittsburgh. **Charles W. Whistler,** superintendent motive power of the Central region at Pittsburgh, succeeds Mr. Wright at Chicago. **Rex R. McKinney,** superintendent, locomotive shop, Altoona Works, succeeds Mr. Whistler at Pittsburgh. **A. Orville Taylor,** master mechanic of the Pittsburgh and Conemaugh divisions at Pitcairn, Pa., succeeds Mr. McKinney at Altoona. **J. C. White,** assistant master mechanic of the Eastern division, has been appointed master mechanic of the Lake division, at Cleveland, succeeding **W. H. Yarber,** who replaces Mr. Taylor. **D. B. Owens** succeeds Mr. White.

Robert M. Holcombe, assistant master mechanic of the New York division of the PENNSYLVANIA, has been promoted to master mechanic, with headquarters as before at New York, succeeding **William P. Bickley,** who has been advanced to assistant superintendent of motive power of the Eastern region at Philadelphia. **C. M. Stewart,** a foreman now serving in the Western region, has been appointed assistant master mechanic at New York, succeeding Mr. Holcombe.

ENGINEERING AND SIGNALING

J. R. Alcorn, engineer of the Alabama division of the SEABOARD AIR LINE at Americus, Ga., has been transferred to the Virginia division at Raleigh, N.C., succeeding **James B. Gregory,** who has been appointed general industrial agent at Norfolk. **C. R. Harrell,** principal assistant division engineer at Savannah, Ga., succeeds Mr. Alcorn at Americus.

Frank A. Mezger has been appointed assistant to chief engineer of the Chesapeake district of the CHESAPEAKE & OHIO at Richmond, Va., succeeding **W. F. Drumeller,** retired. Mr. Mezger, who is 57, started his career with the C&O as a messenger in 1909. Prior to his most recent promotion, he was chief clerk to vice-president.

G. B. Mercer, roadmaster of the CANADIAN PACIFIC at Winnipeg, has been appointed division engineer at Regina, Sask. He succeeds **S. C. Laughlan,** who has resigned to enter a private firm in California.

E. L. Russell, assistant division engineer of the Alabama division of the SEABOARD AIR LINE, has been promoted to principal assistant division engineer, with headquarters as before at Americus, Ga., a newly created position. **A. J. Trzeciak,** principal assistant division engineer at Tampa, Fla., has been transferred to Jacksonville.

W. B. Barber, supervisor of track of the Columbia division of the SOUTHERN at Batesburg, S.C., has been appointed engineer maintenance of way and structures of the WASHINGTON & OLD DOMINION at Leesburg, Va., succeeding **T. C. Dorsey,** resigned.

OBITUARY

F. E. Russell, Sr., retired mechanical engineer of the SOUTHERN PACIFIC, died October 21 at his home in Sacramento, Cal.

Harvey C. Duvall, passenger traffic manager of the CHICAGO & NORTH WESTERN, died at his home in Glen Ellyn, Ill., on October 21. Mr. Duvall entered railroad service in 1913 as a ticket clerk for the C&NW at Norway, Mich. Following overseas service in the Marine Corps during World War I, he became a ticket clerk at Marinette, Wis., city agent at Pittsburgh in 1926, assistant general clerk in the passenger department in Chicago in 1928, assistant general passenger agent in 1936, general passenger agent in 1941, and passenger traffic manager in 1947.

Harvey C. Duvall

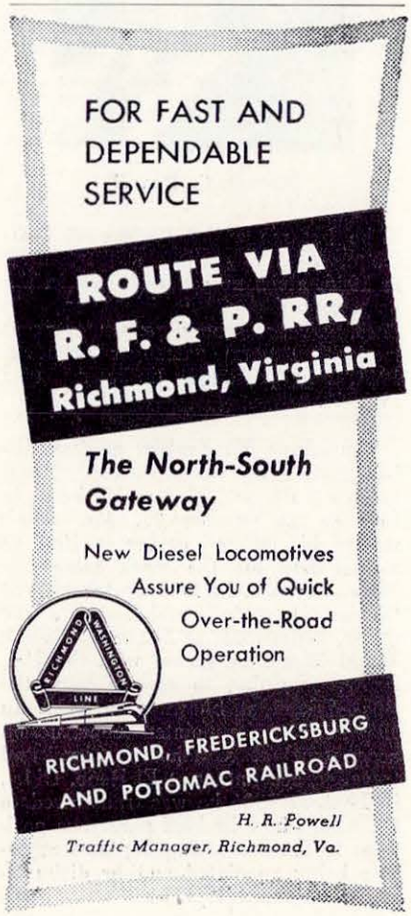
Theodore M. Smith, auditor disbursements of the CHICAGO, ROCK ISLAND & PACIFIC, died at his home in Chicago on October 21. Mr. Smith started his railroad career in 1908 as a call boy for the Rock Island at Shawnee, Okla. In 1911 he transferred to the accounting, and later to the stores, department at Shawnee. During World War I he served with the U.S. Army, returning to service with the Rock Island at Shawnee in 1919. In 1930 he was appointed construction accountant at Oklahoma City, and traveling accountant at El Reno, Okla., in 1932. In 1936 he was transferred to Chicago, where he held numerous positions in the accounting department before being appointed auditor disbursements on April 1, 1952.

(Continued from page 18)
cern about "the deteriorating refrigerator car supply."

Mr. Kelley said the reefer total has been reduced from 135,026 cars in January 1947 to the present total of 125,400. Only about 102,000 of these are RS type cars, the type cars, "vitally needed" by the fresh fruit and vegetable industry, Mr. Kelley said.

"At least 45 per cent of this 102,000 are in very poor condition and face retirement within the next few years," he continued. He called for a program of new car construction sufficient to cover current retirements and at the same time take care of the increasing number of retirements in prospect.

Mr. Kelley said he has figures to indicate that only 5,000 new refrigerator cars will be placed in service this year, and from 1,800 to 2,000 new cars will be constructed in 1953. This program, he said, is "wholly inadequate."



One reason private carlines are reluctant to build more refrigerator cars is the present 3-cent mileage rate, Mr. Kelley added. He said this rate is inadequate to compensate carlines for high construction and maintenance costs. He then noted that carlines have applied to the A.A.R. to increase the mileage rate to 5 cents. Such an increase would not be out of line with increases which have occurred in per diem charges since 1945, he said.

Freight Car Loadings

Loadings of revenue freight in the week ended October 25 totaled 760,741 cars, the Association of American Railroads announced on October 30. This was a decrease of 77,636 cars, or 9.3 per cent, compared with the previous week; a decrease of 104,059 cars, or 12 per cent, compared with the corresponding week last year; and a decrease of 127,194 cars, or 14.3 per cent, compared with the equivalent 1950 week.

Loadings of revenue freight for the week ended October 18 totaled 838,377 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, October 18

District			
Eastern	141,239	147,229	153,852
Allegheny	163,341	173,332	175,016
Pocahontas	50,652	66,197	67,801
Southern	129,550	138,795	134,250
Northwestern	143,555	144,371	146,038
Central Western	142,152	148,427	147,311
Southwestern	67,888	68,297	66,962
Total Western Districts	353,595	361,095	360,311
Total All Roads	838,377	886,648	891,230
Commodities:			
Grain and grain products	54,693	57,380	59,967
Livestock	17,525	18,517	16,688
Coal	123,104	164,620	165,667
Coke	14,893	15,507	16,422
Forest products	44,546	48,514	47,296
Ore	85,395	78,495	71,665
Merchandise l.c.l.	75,278	75,831	88,707
Miscellaneous	422,943	427,784	424,818
October 18	838,377	886,648	891,230
October 11	842,713	868,683	888,889
October 4	851,866	858,757	863,903
September 27	862,061	864,575	880,186
September 20	873,559	863,690	870,529
Cumulative total 42 weeks	30,550,225	32,957,787	31,142,881

In Canada.—Carloadings for the seven-day period ended October 14 totaled 79,484 cars, compared with 84,644 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
October 14, 1952	79,484	34,641
Cumulative Totals		
October 14, 1952	3,256,212	1,399,946

Many Businessmen Help Socialists, Says White

Many businessmen have been giving railroads a "nudge in the direction of nationalization," William White, president of the New York Central, said in Buffalo, N. Y., on October 27. Speaking at a Railroad Week luncheon given by the local Chamber of Commerce, Mr. White added that, although the nudge is unintentional, many businesses have hurt the railroads' chances for survival as a free enterprise industry by opposing efforts to free railroads from outmoded over-regulation and by favoring subsidized forms of transportation.

"Apart from just plain apathy," he continued, "here are some of the ways you have pushed us toward the hands of government: You have built tax-free facilities for our competitors out of your own and our tax money. You have given a lot of your high-rated transportation business to others because, enjoying big subsidies, they sometimes can offer a lower price. Some industries have been supporting organizations which oppose our efforts to keep our heads above water financially or to modernize the horse-and-buggy regulations which treat us as a monopoly. And some businessmen have sent or allowed their employees to go to Washington to oppose us in person. You have not heeded our previous warnings about the dangers of nationalization that confront the railroad industry."

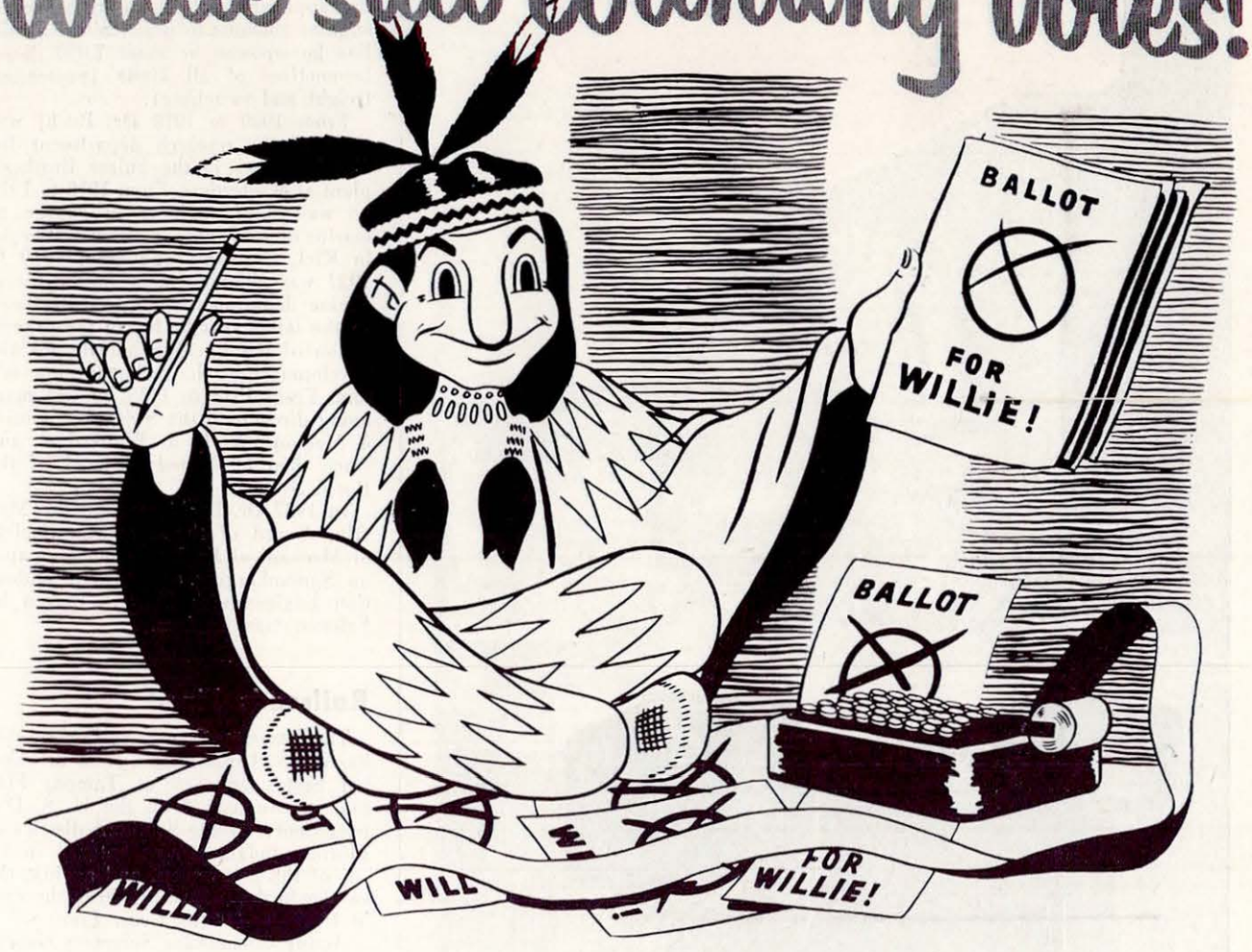
Mr. White listed the following as immediate objectives of the railroad industry and asked his audience for help in achieving them: A provision in the Interstate Commerce Act that users of government-provided transportation facilities pay their fair share of the cost of the facilities; a law eliminating unreasonable delays in I.C.C. action on requests for freight rate adjustments, without prejudice to the commission's right to review and modify; modernization of the "rule of rate making" in the I.C. Act, directing the I.C.C. to consider the practical effect of proposed rates on maintenance of railroad credit—rather than, as now, the theoretical effects of these rates on future railroad traffic volume; repeal of the long-and-short-haul clause; and the right of railroads to appeal to the I.C.C. from adverse decisions of state commissions with respect to abandonment of passenger service whenever railroads can show a continuing financial loss from operation of the service.

Dr. Buchi Receives Henderson Medal

Dr. Alfred J. Buchi of Winterthur, Switzerland, received the George R. Henderson Medal of the Franklin Institute at the Institute's Medal Day ceremonies on October 15. The citation accompanying the medal reads as follows: "In view of his contributions in augmenting the capacity and performance of the four-cycle diesel engine through his turbocharging system, in all classes of service, but particularly in the railway field."

The system developed by Dr. Buchi was primarily designed for the four-cycle engine. In the invention is the introduction of the multiple exhaust pipe arrangement, a feature which contrib-

Willie still counting votes!



Day after day... and far into the night...
Tee-Pee Willie happily counts your votes:

"85,001...85,002...Willie thank-um all of you
For shipping T.P.&W.

85,003...85,004...For shipping carloads by the score
Exceeding hopes, more and more!

85,005...85,006...He and helpers get-um kicks
Out of venture in politics.

85,007...85,008...Willie think-um it so great
That him stay-um candidate!

85,009...85,010...Remember, him never say-um when
His campaign is going to end!"

We at T. P. & W. shall always believe that there will be an infinite wisdom in the well-thought-out, freely expressed will of ALL the people of our country. That is why we hope that, in addition to enjoying our "Willie" campaign series, it also reminded you of your greatest obligation as a citizen of this wonderful country – the obligation to vote selflessly, without preconceived bias, for the good of our country.

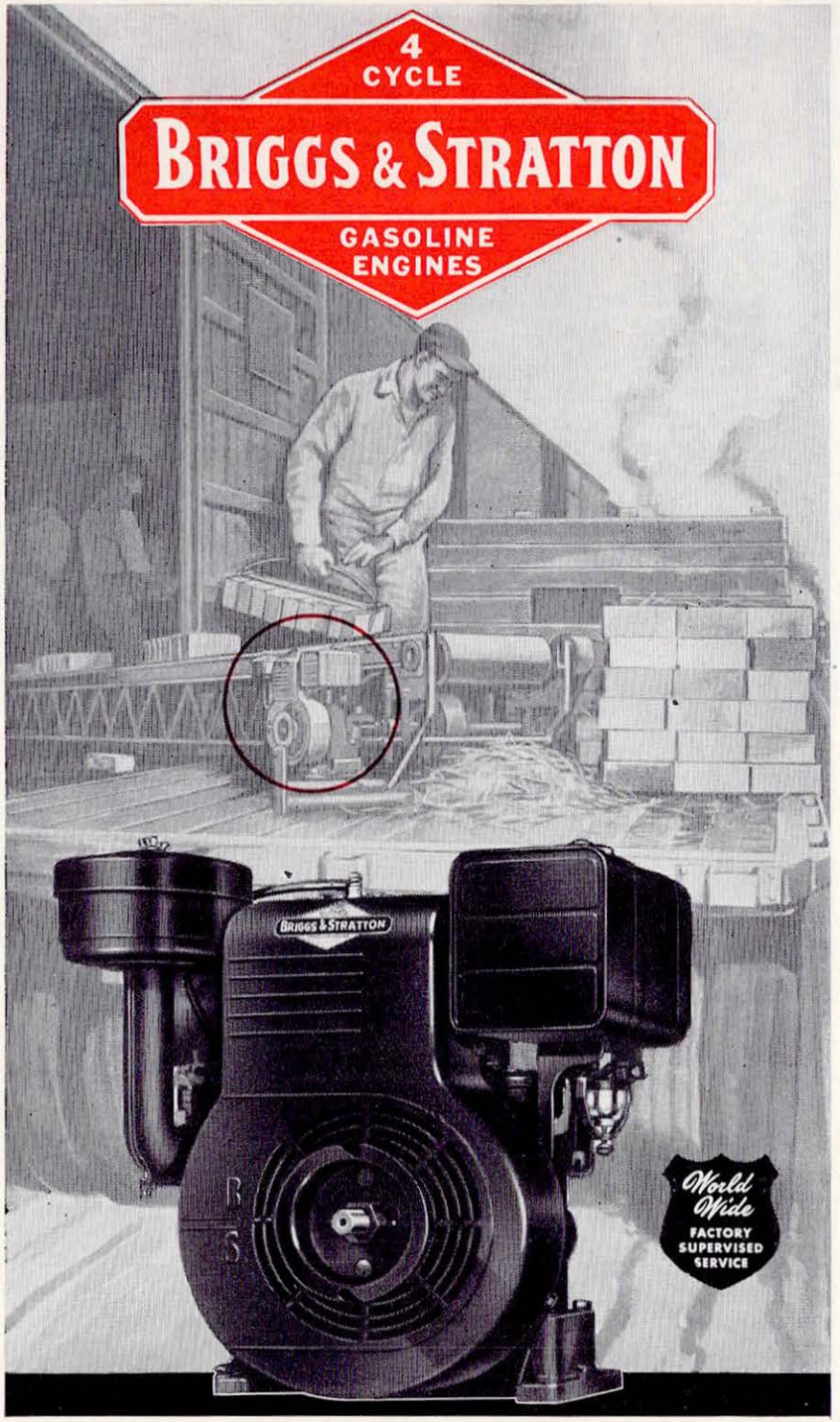
J. RUSSEL COULTER
President

KEEP CASTING VOTES FOR BETTER SHIPPING...
KEEP VOTING FOR WILLIE WITH CARLOADS ON T.P.&W.

T.P.&W.

TOLEDO, PEORIA & WESTERN RAILROAD
Offices in 19 principal cities
General Offices: Peoria, Illinois

"the road that's best... links east and west"



Preferred power on portable conveyors for economically moving bulk materials! These are the world's most widely used single-cylinder gasoline engines on hundreds of kinds and types of machines, tools and appliances. They are preferred by industry, construction, railroads, oil fields, and on equipment for farms and farm homes.

WHEREVER you find gasoline powered equipment doing the job better, faster — invariably the power is Briggs & Stratton. These single-cylinder, 4-cycle, air-cooled gasoline engines are leaders in the field and preferred for dependable power the world over. Briggs & Stratton Corporation, Milwaukee 1, Wisconsin, U. S. A.

In the automotive field Briggs & Stratton is the recognized leader and world's largest producer of locks, keys and related equipment.

uted materially to the success of supercharging the diesel engine. The system has had extended application in the stationary, marine and locomotive fields. In the latter field alone in this country the application of Buchi-turbocharged engines amounts to practically 8.5 million horsepower, or about 7,000 diesel locomotives of all kinds (passenger, freight and switching).

From 1909 to 1918 Dr. Buchi was chief of the research department for diesel engines in the Sulzer Brothers' plant at Winterthur. From 1918 to 1919 he was chief engineer in charge of marine diesel engines at Howaldtswerke in Kiel, Germany, and from 1919 to 1927 was chief engineer in the diesel engine department of Sulzer Brothers. In the latter year he began the organization of the Buchi Syndicate for the development of the turbocharging system. From 1928 to 1935 he was managing director of the Swiss Locomotive & Machine Works at Winterthur, and since then has acted as head of the Buchi System.

In 1937 Dr. Buchi received the Melville Award of the American Society of Mechanical Engineers for his paper on Supercharging of Internal-Combustion Engines with Blowers Driven by Exhaust Gas Engines.

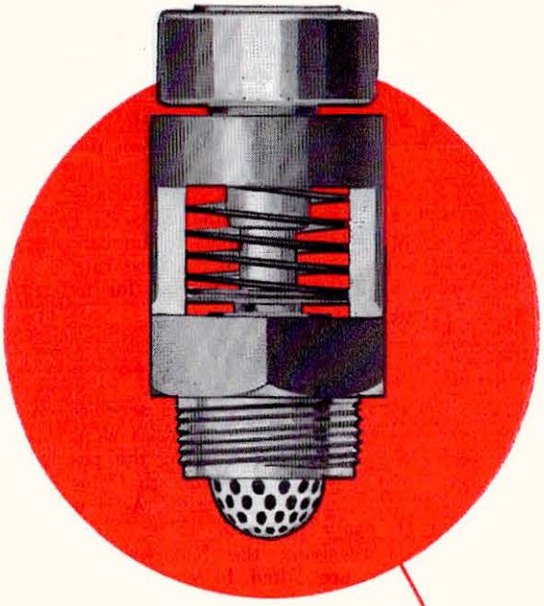
Railroads Fined

The Interstate Commerce Commission has received information from the United States attorney at Tampa, Fla., that on August 22, in the U. S. District Court for the Southern district of Florida, judgment was entered in favor of the government and against the carrier in the sum of $1,000 in the case of *U. S. v. Atlantic Coast Line.*

Acting Commission Secretary George W. Laird said in a memorandum for the press that this was a "civil penalty for failure to comply with the provisions of Service Order 866, issued by the commission and prescribing railroad operating regulations for freight car movement during the existing emergency."

Another memorandum recently released by Mr. Laird advised that, on September 16, in the U. S. District Court for the Eastern district of Pennsylvania, the following companies and persons entered pleas of *nolo contendere* to five counts of indictments charging violations of the Elkins Act: Providence-Philadelphia Dispatch, Inc., of Philadelphia, a freight forwarder; Thomas J. Sullivan, Jr., its president; Norman K. Rieff, its treasurer; the Pennsylvania, and the New York, New Haven & Hartford. Fines of $5,000 each were imposed on Providence-Philadelphia, the PRR and the New Haven by Judge Allan K. Grim. Messrs. Sullivan and Rieff were fined $1,000 each and placed on probation for six months.

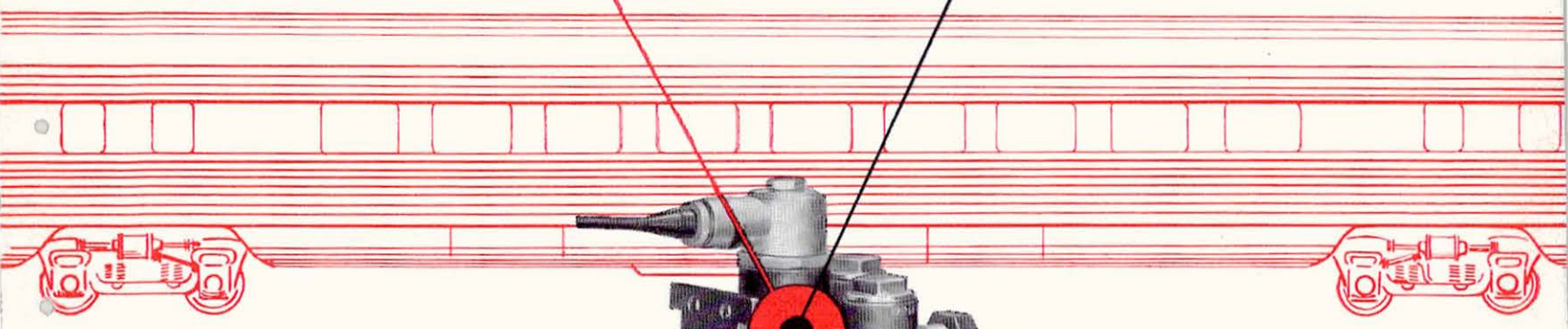
The indictment against Providence-Philadelphia and its two officers charged "in substance" that they "did

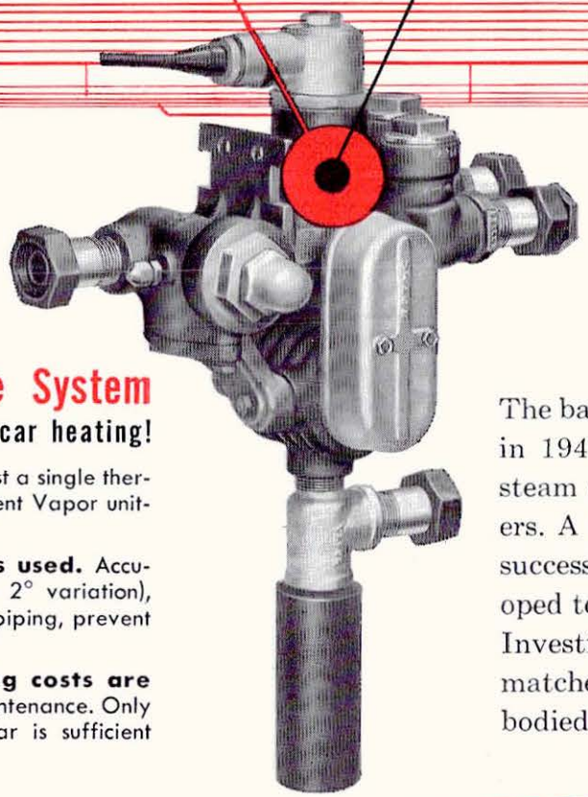


Part No. 1752-CC
(FULL SIZE)

THIS SINGLE UNIT
IS THE ONLY OPERATING PART
IN THE ENTIRE VAPOR
Unizone System
FOR HEATING
OPEN-BODIED CARS*

*Coaches, Parlor Cars, Diners, etc.





The VAPOR Unizone System
has revolutionized open-bodied car heating!

FIRST, because it's so simple—just a single thermostat, a single regulator, and efficient Vapor unit-fin radiation.

SECOND, because less steam is used. Accurate car-temperature control (within 2° variation), and the virtual absence of exposed piping, prevent needless waste; conserve heat.

THIRD, because all car-heating costs are lower—first-cost, operating cost, maintenance. Only 10 to 15 minutes *per year* at the car is sufficient for annual servicing.

The basic idea of Unizone had its beginning in 1941 when Vapor pioneered a single steam control applied to 3200 troop sleepers. A thermostat was added in 1946, and successive improvements have fully developed today's outstanding Unizone System. Investigate, and you'll specify, this unmatched economical comfort for every open-bodied car—new, or going into your shops.

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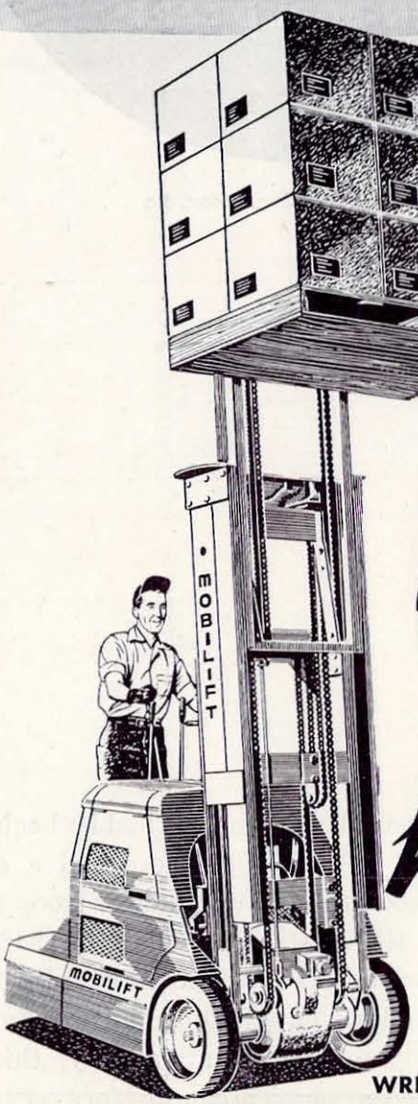
FORK LIFT TRUCKS



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Special Masts to Order.
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2730 San Pablo Ave., BERKELEY

solicit and receive unlawful concessions from the railroads by the device of falsely representing the weight of carload shipments of freight, thereby obtaining transportation at less than the published tariff rate."

The indictment against the railroads charged "in substance" that they "did transport for the freight forwarder carload shipments of freight at a less rate and charge than that provided for in the published tariffs."

Amortization Certificates

Certificates of necessity for accelerated tax amortization of facilities were granted to 11 railroads during the period from September 25 through October 8, the Defense Production Administration has announced.

Roads receiving the fast write-off certificates are listed below, together with amounts approved by D.P.A. and the percentages of those amounts which can be written off in five years.

Central Pacific, $53,140—40 per cent.

Chesapeake & Ohio, $1,041,485—40 per cent.

Chicago, Indianapolis & Louisville, $516,000—70 per cent.

New York Central, $507,000—40 per cent.

New York, Chicago & St. Louis, $132,265—40 per cent.

Norfolk & Western, $1,575,000—55 per cent.

Pennsylvania, $38,242—40 per cent.

Pittsburgh & Lake Erie, $1,398,100—50 per cent; and $1,133,670—40 per cent.

Reading, $1,717,600—40 per cent.

Texas-New Mexico, $1,230,000—70 per cent.

Union Pacific, $118,190—50 per cent; and $721,846—70 per cent.

In its report for the period from October 9 through October 15, D.P.A. showed that certificates then approved included the following:

New York Central, $280,987—40 per cent.

Western of Alabama, $35,160—40 per cent.

A recent compilation by D.P.A. showed that line-haul operating railroads as of last June 30 had received 751 certificates. These certificates contemplated acquisition of equipment and facilities costing $2,534,083,000; and 77 per cent of this equipment, valued at $1,938,649,000, was "in place" as of June 30. D.P.A. estimated these "in place" figures had risen to 83 per cent and $2,101,995,000, respectively, by September 30.

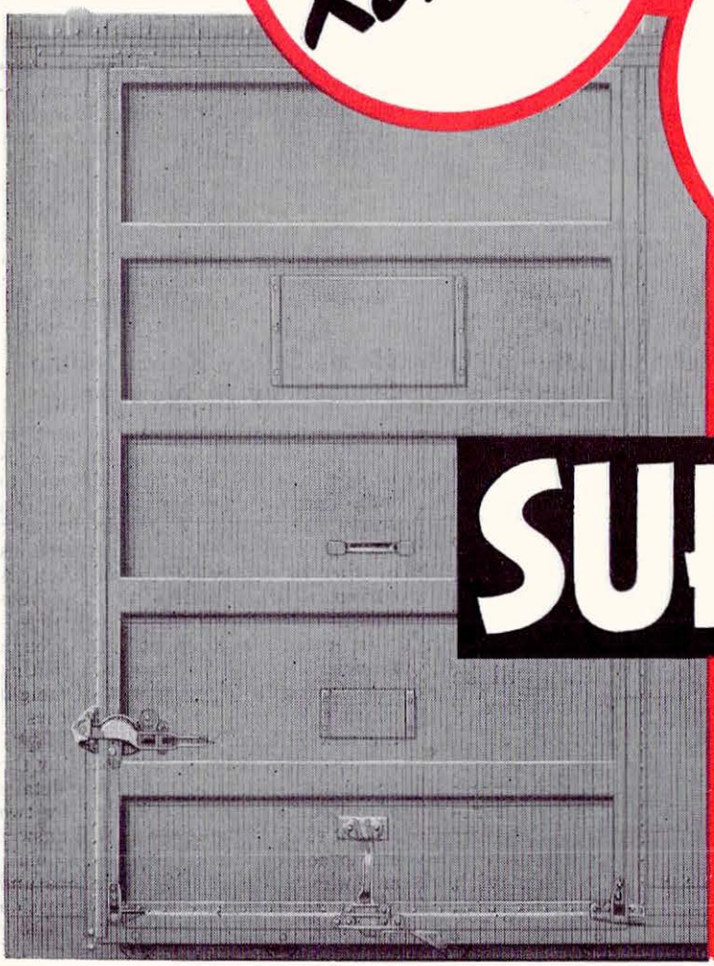
Truckers Got $3.7 Billion From Intercity Hauls in '51

Common and contract truckers grossed an estimated $3.7 billion from the intercity traffic they handled in 1951.

The estimate was made by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission in the latest issue of its "Monthly Comment." It put the 1951 "takes" of common and contract carriers at $3.459.6 million and $226.3

Free Rolling

Tight Closing



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CAR DOOR

Free Rolling on ball bearings.

Easy operation means less damage to door and car side.

Tight closing, all edges baffled. Weatherproof, cinderproof, pilfer-proof.

Superior Car Doors mean satisfied shippers

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Lading protection reduces damage claims

SUPERIOR CAR DOOR COMPANY

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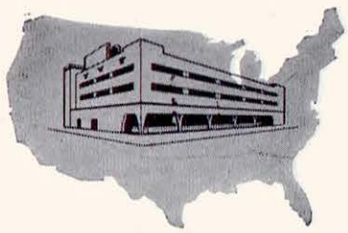
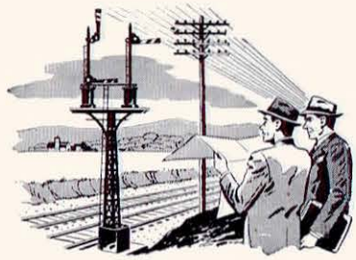


1. A nation-wide warehouse system



2. Help from Railroad Specialists

3. Local Graybar Representatives

4. Catalog and quotation service

How Graybar speeds your procurement of electrical supplies

As an all-inclusive source of your electrical needs, Graybar can help you simplify procurement of telephone and telegraph equipment . . . pole-line supplies . . . indoor and outdoor lighting . . . . motors and power-supply items.

Scarcities of electrical items are bound to occur. Some will be local or temporary, others will be more serious—but, *on any order to Graybar,* you get full advantage of these "shortage beaters".

1. A nation-wide warehouse system that permits day-by-day check on the over-all supply picture, helps anticipate and forestall shortages before they occur.

2. The services of Graybar Railroad Specialists to work closely with you and, when necessary, to procure or to suggest substitutes for electrical items in short supply.

3. Near-by Graybar Representatives to provide up-to-the-minute forecasts of local delivery conditions and material availability.

4. Catalog and quotation service on the more than 100,000 electrical supplies distributed by Graybar.

Make it a point to plan ahead and avoid delivery delays—let Graybar be your electrical materials mobilizer. *Graybar Electric Co., Inc. Executive offices: Graybar Building, New York 17, N. Y.* 140-2011

OFFICES AND WAREHOUSES IN OVER 100 PRINCIPAL CITIES

million, respectively. These compared with 1950 figures of $3,063.3 million and $199.3 million.

The bureau's figures were set out in a table which showed the situation since 1939. In that year common-carrier truckers grossed an estimated $579.1 million from intercity traffic, while contract carriers grossed $112 million.

Similar data were presented for bus operators, which had an estimated 1951 gross of $432.6 million from intercity, regular-route services. That compared with $399.4 million in 1950. Comparable figures for prior years were available back to 1945, when the gross was $444.2 million, the highest of the eight-year period. The low was 1950's $399.4 million.

The figures cover Class I, II and III motor carriers. The bureau said it expected to issue a special report to present fully the methods, sources and "other pertinent information" used in preparing the estimates.

Home Study Rate Course Started by Milwaukee

A correspondence study course in freight rates and related subjects is being made available without cost to interested employees of the Chicago, Milwaukee, St. Paul & Pacific. The first lesson, which covers pertinent sections of the Interstate Commerce Act, is currently being mailed to employees who have enrolled in the course.

Improved service to patrons through reduced possibility of errors in routing shipments and in assessment of freight charges, are the announced purposes of the new venture.

The course is being sponsored by the accounting department, with the details of conducting lessons handled by two freight rate instructors, who will answer employees' questions submitted by mail, and who will visit freight stations and offices at intervals to lead discussion groups.

Frisco to "Scotchlite" Locomotives, Freight Cars

The St. Louis-San Francisco is beginning a program of applying "Scotchlite" reflective material to all freight locomotives, flat cars, pulpwood cars and wallboard cars in an effort to increase night time visibility of freight trains at highway grade crossings.

Six-inch gold-colored, diamond-shaped tapes of the reflective material will be applied on the sides of the cars at uniform intervals, so far as structural characteristics will allow. The cars themselves will be given a coat of "target yellow" paint to replace the traditional dark red.

New 12-in. lettering will be applied in "Scotchlite" to the sides of all road freight locomotives. Numbering will likewise be redone in 12-in. reflective characters. Frisco switching locomo-

ADD A STEP !

When the soldiers of Alexander the Great complained to him that their swords were shorter than those of the enemy, he replied, "*Add a step to yours.*"

If the pinch of competition is troubling you, take a tip from Alexander the Great and "add a step" by coming South.

Our experienced plant location service is extended you without obligation or cost. All negotiations are confidential.

Address:
Warren T. White,
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Seaboard Air Line Railroad,
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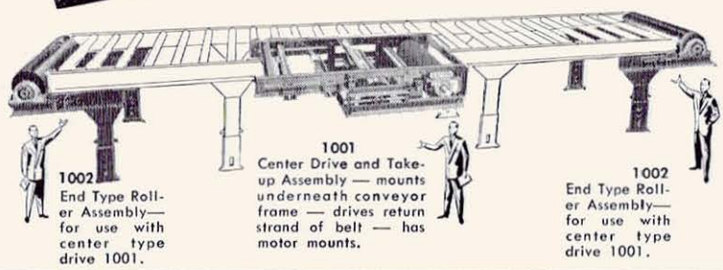
GROW with the GROWING SOUTHEAST!

SEABOARD AIR LINE RAILROAD

THROUGH THE HEART OF THE SOUTH

Now...ENGINEER AND ASSEMBLE YOUR OWN CONVEYOR WITH

Standard HANDIDRIVE 1000 SERIES PRE-BUILT POWER CONVEYOR UNITS



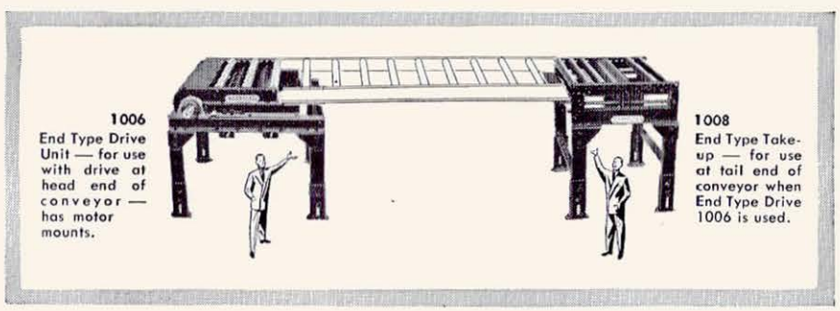
1002 End Type Roller Assembly—for use with center type drive 1001.

1001 Center Drive and Takeup Assembly — mounts underneath conveyor frame — drives return strand of belt — has motor mounts.

1002 End Type Roller Assembly—for use with center type drive 1001.

HANDIDRIVE 1001-1002 PRE-BUILT CONVEYOR UNITS

This Center Drive and Takeup Assembly drives return strand of belt—mounts underneath conveyor frame — can be used to convert present gravity conveyors to live, or powered, belt or roller conveyor or to make additions or changes to existing power conveyors. Unit 1002 is End Type Roller Assembly for use with 1001 Center Drive Assembly.



1006 End Type Drive Unit — for use with drive at head end of conveyor — has motor mounts.

1008 End Type Takeup — for use at tail end of conveyor when End Type Drive 1006 is used.

HANDIDRIVE 1006-1008 PRE-BUILT CONVEYOR UNITS

1006 is an End Type Drive Unit for use with drive at head end of conveyor. 1008 is an End Type Take-up for use at tail end of conveyor when End Type Drive 1006 is used. These two stock units make it an easy and simple matter to put together a complete power conveyor line.

1007 Triple Snub Assembly — for transferring from horizontal to incline conveyor.

HANDIDRIVE 1007 PRE-BUILT CONVEYOR UNIT

This is a Triple Snub Assembly Unit for placing in a conveyor line for transferring flow of commodities from horizontal to incline. Another of Standard's stock units that provide flexibility of planning and arrangement in making your own custom-built conveyors.

Send today for HANDIDRIVE 1000 *Series and complete information. Conveyor-engineering service is offered without obligation. Series "400" and "700" units also available for lighter load applications.* Write Dept. RA-112

STANDARD CONVEYOR COMPANY
General Offices: North St. Paul 9, Minnesota
Sales and Service in Principal Cities

Send for special bulletin HANDIDRIVE 1000 Series and Bulletin 63B describing Standard Gravity and Power Conveyor Units.

tives have already been similarly equipped with "Scotchlite" markings. The Frisco has been fully dieselized since February 29.

Plan National Travel Show In Chicago, Feb. 20-Mar. 1

The National Association of Travel Organizations, with headquarters in Washington, D.C., will endorse and sponsor a National Travel Show, to be held in Chicago from February 20 through March 1, 1953.

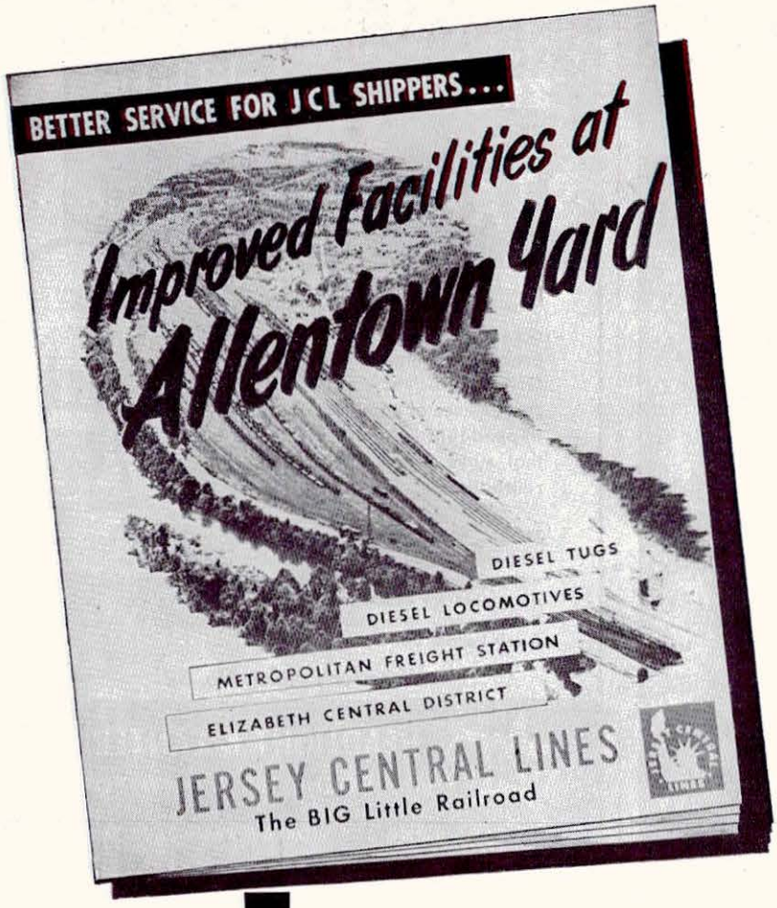
The travel show, which will be held in the International Amphitheatre, will actually be a "show within a show," as it will be staged as a part of the annual International Sports and Outdoor Show. The travel show will occupy the entire south wing of the amphitheatre and will be managed by American Shows, Inc. The sports and outdoor show is said to be the largest of its type in the U.S.—both in number of exhibitors and size of attendance.

Briefly . . .

. . . Robert G. Hodgkin, Jr., public relations representative of the Atlantic Coast Line, has been awarded the degree of Master of Photography by the Photographers Association of America —possibly the first railroad man ever to be so honored. The award was based on "points" given "for outstanding pictures selected to be hung in national shows and for contributions to the advancement of the photographic profession." Mr. Hodgkin, who was a commercial photographer before he joined the ACL, is also president of the North Carolina Photographers Association.

. . . To simplify railroad coach ticket sales, automatic ticket machines have been placed in operation by the New York Central at two ticket windows in New York's Grand Central Terminal. The machines, improved models of machines with which the road first experimented in 1946, print 460 different types of tickets to 125 heavy-volume destinations. They can produce all types of coach tickets: One way, round trip, half fare, clergy, government order and tax exempt tickets for city, state and federal employees traveling on business.

. . . The Burlington has redesignated private room accommodations offered in certain cars of the "Denver Zephyr" between Chicago and Denver. Formerly known as "chambrettes"—a designation not used by any other U.S. road—the rooms will henceforth be known as "duplex single bedrooms." Each of these rooms contains a bed, a chair and complete toilet facilities. They are similar in almost all respects to duplex single bedrooms offered by other roads.



The extent and condition of any railroad's facilities govern to a large degree its ability to serve shippers economically . . . *and with a minimum of delay or red tape.*

During the past three years Jersey Central Lines has authorized the expenditure of $27,000,000 for expanded facilities . . . and for new and improved equipment such as diesel locomotives, diesel tugboats, signals, an LCL freight station and freight handling equipment. All these add up to better, safer and faster handling of traffic routed via Jersey Central Lines.

Part of the story of Jersey Central's "new era in freight service" is contained in an illustrated booklet recently published in connection with the start of full-scale operations at our new Allentown-Bethlehem classification yard in Pennsylvania.

Why not send for your copy today? Just write Don Y. Smith, chief freight traffic officer, Jersey Central Lines, 143 Liberty Street, New York 6. Or telephone him at BArclay 7-9700.

●

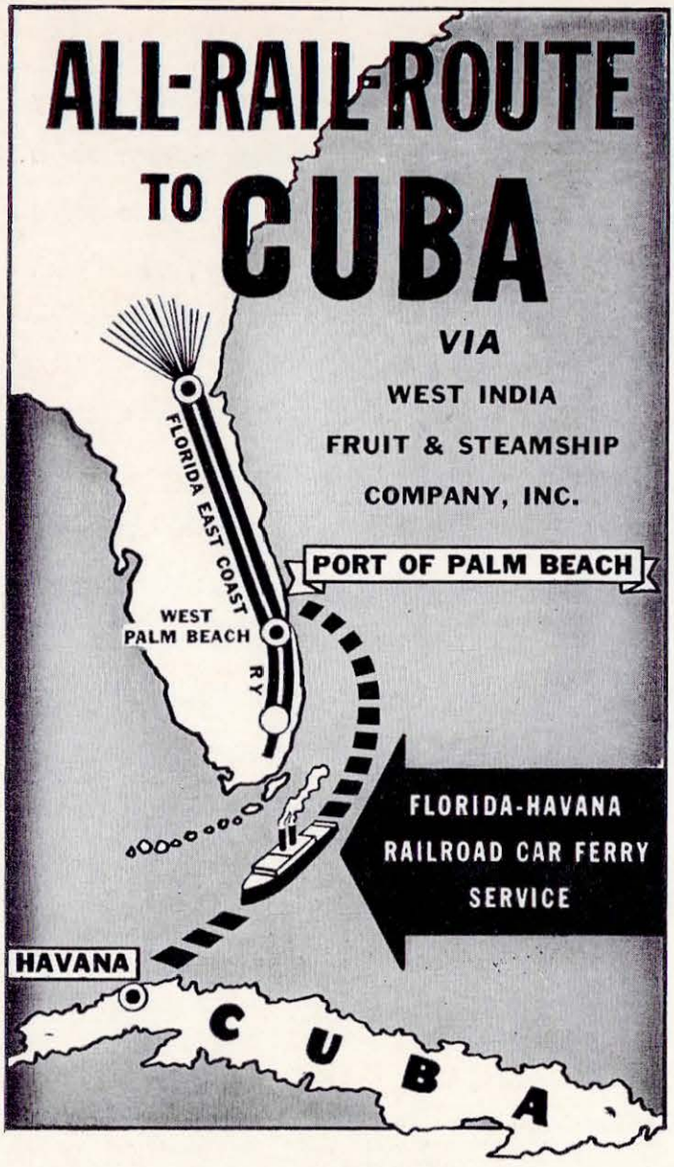
JERSEY CENTRAL LINES

The BIG Little Railroad

ALL-RAIL ROUTE TO CUBA

VIA

WEST INDIA FRUIT & STEAMSHIP COMPANY, INC.



FAST, regular direct movement between any point in the United States or Canada and Cuba of any freight that can be handled by rail.

Cars loaded by shippers and routed via Ferry arrive Cuba intact, thus eliminating handling and necessity of export crating or packing.

To help alleviate the anticipated shortage of cars, 150 new "WIF" (West India Fruit) box cars are being placed in service.

For bookings or rate information contact:

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SWITCH TO
STAR ELECTRIC LANTERNS

Star Headlight and Lantern Co. has only one thought in mind—that of producing a light that never fails. Greater efficiency, extra economy, convenience of handling and a safe, dependable light are the features that make Star Lanterns first with railroad men.

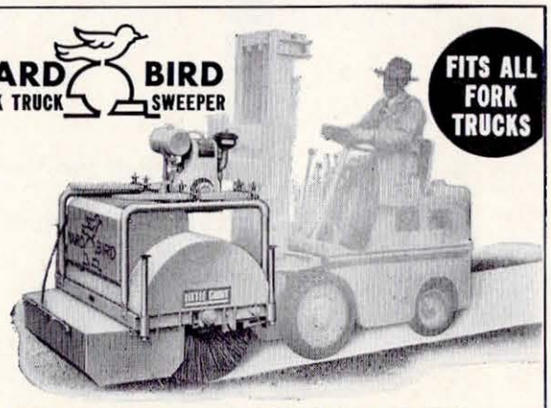
MODEL 204-2BHB. The twin bulb safety lantern. Both case and unique light control mechanism are tightly sealed and rust-resistant. Extra heavy base makes this model highly adaptable for Diesel Engine Service. Bail locking clip locks bail in rigid, safe-operating position. Standard bulbs and 6-volt lantern battery.

Write for Catalog No. 52

STAR **HEADLIGHT & LANTERN CO.**
ROCHESTER 6, NEW YORK
GUIDING THE WORLD'S RAILROADS SINCE 1889

YARD BIRD FORK TRUCK SWEEPER

FITS ALL FORK TRUCKS



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- Utilizes your present fork trucks
- One man replaces sweeping crew
- Does speedier, more thorough job
- Up to 100,000 sq. ft. per hour
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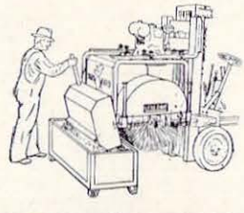
- Sprinkles while it sweeps
- Cost much less than any power sweeper of equal capacity

Hundreds in successful use by Railways, Factories, Foundries, Docks, Warehouses, Airports, etc.

Floating dust pan quickly, easily emptied into any height receptacle . . . no re-handling. No other sweeper can do this!

POWERFUL 7 H. P. Wisconsin Gas Engine. SIDE BRUSH, optional, at small extra cost.



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LITTLE GIANT PRODUCTS, Inc. 1533 North Adams St. PEORIA, ILLINOIS

Available!

HEAVY DUTY-MILL TYPE ALL STEEL GONDOLAS

furnished with either 70 or 50 ton capacity trucks

Rebuilt for exceptional heavy duty service, these cars are in excellent condition and can withstand severe abuse, particularly where clam shell buckets or magnetic cranes are used for loading and unloading.

Each car is reconstructed with an inside height of 2 feet 6 inches to reduce the possibility of overloading breakdowns. Whether used for railroad interchange, industrial service or mill type service, these cars will prove efficient and economical to operate.

CFC Gondola cars are reconditioned to include these special features:

- New welded steel floors up to ½" in thickness as specified by customer
- New steel sides and ends up to ⅜" in thickness as specified by customer
- New side and end top chord angles
- Double fish belly type center sills built of steel plate and angles 17" deep at body bolster to end sill and 24" deep at the center of the car. Center sills are continuous.
- Fish belly type side sills 24" deep at center of car
- AB, KC type or straight train line air brakes as specified.

Each car is put into first class operating condition by skilled workmen in Chicago Freight Car's own shops. Built in 1926, these gondola cars will give many years of rugged service. They are priced to give you exceptional values and are ready for prompt delivery.

GENERAL SPECIFICATIONS

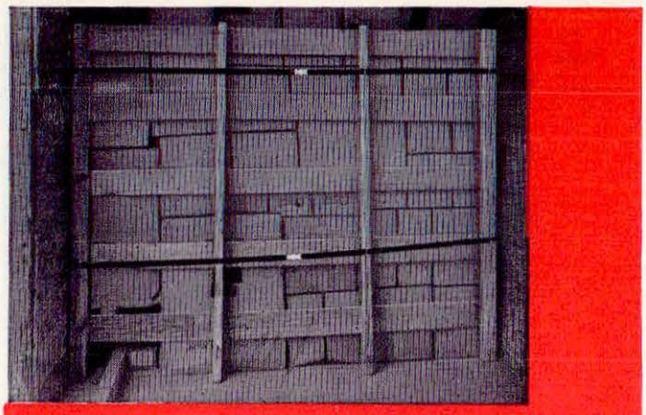
Capacity, nominal	100,000 lbs.
Light weight, approx.	48,000 lbs.
Load limit	121,000 lbs.
Inside length	38 ft. 4 in.
Inside width	9 ft. 0 in.
Inside Height	2 ft. 6 in.
Length over strikers	40 ft. 6 in.

Write for specification sheet giving complete data.

CHICAGO FREIGHT CAR... *and parts company*

CHICAGO, ILL. · AUBURN, WASH. · PUEBLO, COLO.

MAIN OFFICE: 228 North LaSalle Street, Chicago 1, Illinois



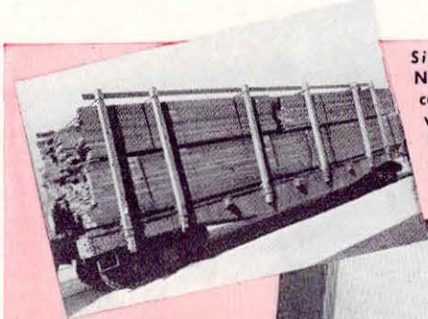
Signode securing of LCL and stopover loads is only a part of the story in using Signode heavy-duty strapping. It is used to separate ladings because it conserves space which is wasted when bulky dividers are used.

Who gets the over-ripe tomato?

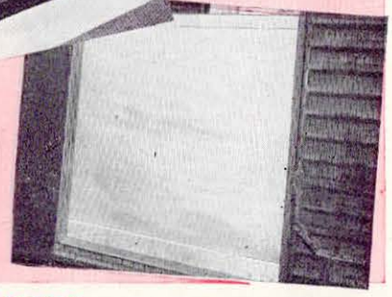
Let just *one* container in a shipment be damaged! The shipper and the consigner start throwing ultimatums! Regardless of who's to blame, you know who gets the over-ripe tomato—the railroads!

Like the railroads, we have a selfish interest in seeing the over $100,000,000 in loss and damage claims brought to the minimum. We spend hundreds of thousands of dollars annually to educate shippers to the many uses of protective Signode steel strapping. It minimizes and stops this rise of loss and damage claims.

We'll show loading crews in your freight house the new tested and approved ways in better packaging and carload bracing, and the best methods of using strapping and tools. Write Signode in Chicago.



Signode Grain Doors. Nearly 2,000,000 grain cars have been coopered with Signode One-Piece-One-Man Grain Doors! AAR approved. Easily applied; quickly opened for unloading.



Signode AAR Specified Lumber Loads save railroads thousands of dollars annually. There is no profit in readjusting bad order cars on the rip track.

SIGNODE STEEL STRAPPING COMPANY

2637 N. Western Ave., Chicago 47, Ill.

Offices Coast to Coast

In Canada: Canadian Steel Strapping Co., Ltd.

SIGNODE

this seal means security in shipping

ARE *YOU* NUMBERED HERE AMONG RAILWAY AGE'S 14,813 *PAID* SUBSCRIBERS?

Railway Companies:	
(a) Executive Department - Chairmen of boards, presidents, assistants to presidents, corporate vice-presidents, secretaries, treasurers, auditors, assistants & other departmental employes	1,378
(b) Operating Department - Vice-Presidents, general managers, general superintendents, division superintendent's assistants & other departmental employes	4,492
(c) Traffic Department-Vice Presidents, freight traffic managers, passenger traffic managers, general freight & passenger agents, & other departmental employes	1,607
(d) Purchasing Department -Vice-Presidents, general purchasing agents, purchasing agents, assistants & other departmental employes	237
(e) Mechanical Department - Vice Presidents, general superintendents of motive power, mechanical engineers, master mechanics, shop superintendents, & other departmental employes	1,312
(f) Engineering Department - Vice-Presidents, chief engineers, engineers maintenance of way, engineers bridge & building, division engineers & other departmental employes	1,247
(g) Signal & Electrical Department-Signal engineers, electrical engineers, & other departmental employes	263
(h) Stores Department - General storekeepers, district storekeepers, division storekeepers, storekeepers, assistants & other departmental employes	262
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Industrial Company's Traffic Departments-Vice-Presidents, Chief Shippers, General Traffic Managers, Traffic Managers & Assistants	121
Railway equipment & supply manufacturers, contractors	1,747
Financial & management companies R. R. Y. M. C. A.'s, clubs, colleges, associations, students, public libraries	201 1,014
Miscellaneous	821
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Awaiting Classifications	63
TOTAL	14,813

June 30, 1952 ABC Statement

VERY IMPORTANT PEOPLE

—*you Railway Age subscribers!*

The ABC symbol displayed on this page stands for "Audit Bureau of Circulations," a cooperative association of advertisers, advertising agencies and publishers for the verification of circulation.

Once a year ABC's auditors give us—and any interested person—a detailed, accurate, verified account of everyone who pays to receive *Railway Age:* who and where they are . . . how many they add up to . . . what their titles, their work and, consequently, their job interests are . . . and many more facts that check and double check the *exact number* and the *exact kind* of subscribers we are reaching.

Editorially, our main objective is to help *you* do your job quicker, more efficiently, and at a greater profit. With the ABC audit verifying regularly and authoritatively just who, what and where you are, we have impartial confirmation of the soundest formula for selecting and publishing the kind of articles and features in which you have a marked on-the-job interest. Guided by the ABC audit, *Railway Age's* editors work *expressly for you.*

The same detailed check which guides our editors in being of greater service to you also helps our advertisers. They, like the editors, take the ABC audit seriously. Knowing the facts help them to tell you how to do a job faster, better and, again, at a greater profit. That's why the ads in *Railway Age* constitute such a valuable supplement to the editorial content.

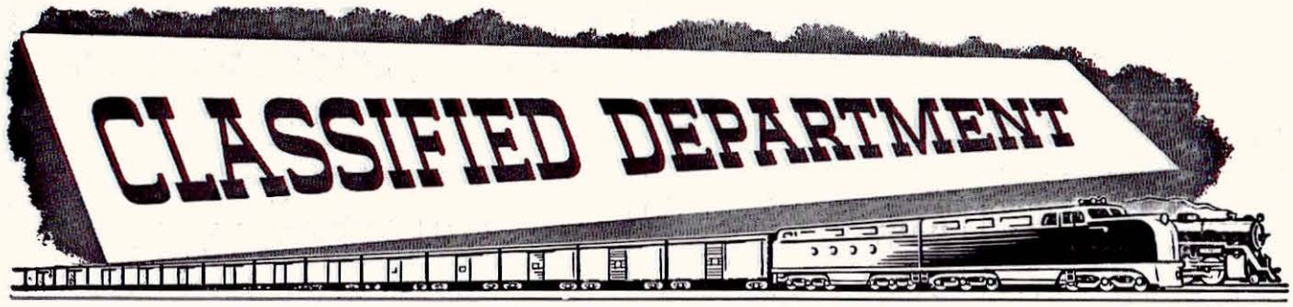
Yes, in both our editorial and advertising pages, you're in the driver's seat—very important people!

In addition to the ABC audit, the fact that you *pay* for our publication helps to keep us on our toes. Because you respect *Railway Age* enough to pay for it, we, in turn, must produce a business paper that continually *earns* that respect. *The fact that in the past two years,* as verified by ABC, *we have increased our circulation among railroad men by 100%, shows that our efforts are successful!*

If by any chance, you're not numbered among those in the totals at the left . . . if perchance you're reading someone else's copy of *Railway Age*—why not become a full-fledged *Railway Age* subscriber *today!* Let this service work for you regularly every week!

ABP-ABC RAILWAY AGE

30 Church Street, New York 7, New York



Rates: $5.00 an inch (1" x 1⅝") per insertion; employment ads 10 cents a word, minimum $2.00. Add $1.00 for box address.

RAILROAD EQUIPMENT—*FOR SALE*

USED AS IS RECONDITIONED

STANDARD GAUGE FREIGHT CARS

Box—Double Sheathed, 50-Ton
Box, Single Sheathed, 50-Ton
Flats, 40- & 50-Ton, Steel Underframe, 40' 0"
Gondolas, Composite, 40-Ton Capacity
Gondolas, Composite or All-Steel, 50-Ton
Hoppers, Covered, All-Steel, 70-Ton
Hoppers, Twin, All-Steel, 50-Ton Cross Dump
Hoppers, All-Steel, 70-Ton, Cross Dump
Tank, 3,000-Gallon, High Pressure
Tank, 8,000-Gallon, Coiled and Non-Coiled

EXTRA LONG FLAT CARS

40- & 50-Ton Capacity, Length 70' and 74'

CABOOSE CARS

Eight Wheel, Cupola Type

STANDARD GAUGE AIR DUMP CARS

Side Dump, 20-Yd., 40-Ton, Lift Door
End Dump, 20-Yd., 50-Ton, Drop Door
End Dump, 10-Yd., 30-Ton, Lift Door

OTHER EQUIPMENT

Locomotive Cranes
Overhead Cranes
Railroad Track Scales

STANDARD GAUGE DIESEL-ELECTRIC ROAD SWITCHING LOCOMOTIVE

1500-H.P., 120-Ton, Type 0-4-4-0

PASSENGER EQUIPMENT

Passenger Cars
Baggage Cars
4 All-Steel Dining Cars, Air-Conditioned

Send us your inquiries **We Buy Freight Cars for Dismantling** *Send us your offerings*

REPAIR PARTS For All Types of Freight Cars

IRON & STEEL PRODUCTS, INC.

GENERAL OFFICE
13486 S. Brainard Ave., Chicago 33, Illinois
Phone: BAyport 1-3456

NEW YORK OFFICE
50-c Church St., New York 7, N. Y.
Phone: BEekman 3-8230

"ANYTHING containing IRON or STEEL"

STORAGE TANKS
6,000 Gallon
8,000 Gallon
10,000 Gallon

Educational Services for RAILROAD MEN

Our New Service on Diesel Locomotive Operation is highly recommended for Engineers and Firemen

The Railway Educational Bureau Omaha 2, Nebraska

RAILROAD PRODUCTS WANTED

Company thoroughly familiar with manufacturing and selling in the railroad field wants products to make and sell. Might install new production facilities if the right product did not fit our present ones. Take that idea of yours off the shelf and let us look at it. All replies confidential.

Address Box 664, RAILWAY AGE, 30 Church St., New York 7, N. Y.

PROFESSIONAL DIRECTORY

Robert W. Hunt Company
ENGINEERS

Inspection—Tests—Consultation
All Railway Equipment
Structures and Materials
General Office:

175 W. Jackson Boulevard
CHICAGO

New York-Pittsburgh-St. Louis

KEEP BUYING BONDS

ENGINEERS—CONTRACTORS

Budgets Are Being Prepared Now For 1953

Keep your name, address and services in front of the responsible railroad men. Advertise in the

"PROFESSIONAL DIRECTORY"
Railway Age
30 Church St., New York 7, N. Y.

CLASSIFIED DEPARTMENT

NEW AND USED EQUIPMENT

FOR SALE

65 ton General Electric 380 HP diesel electric locomotive. Rebuilt.

4 heavy duty steel flat cars, 70 ton capacity.

30 ton Industrial Brownhoist locomotive crane gasoline powered.

MISSISSIPPI VALLEY EQUIPMENT CO.
509 Locust St. St. Louis 1, Mo.

FOR SALE

25—10,000 CLASS III TANK CARS.
30 TON IND. GAS LOCO. CRANE.
20 TON WHITCOMB GAS LOCOMOTIVE.
65 TON G.E. DIESEL ELEC. LOCOMOTIVE.
2—100 TON G.E. DIESEL ELEC. LOCOMOTIVES.
6—10,000 & 20,000 GAL. STEEL TANKS.
DARIEN, 60 E. 42nd St., N.Y. 17, N.Y.

FOR SALE

3 ft. gauge 13 ton Porter saddle tank steam loco. Runing condition. Price $2100.

J. Wulfson
50 Colfax Street
South River, N. J.

TANK CARS

2 only Class ICC-103-A, 8,000 gallon—50-ton trucks. Excellent condition.
Address Box 663, RAILWAY AGE, 30 Church St., New York 7, N. Y.

LOOKING FOR A JOB?

USE THE CLASSIFIED DEPARTMENT

BUY BONDS

FOR SALE

7 Streamlined All Steel Dining Cars

Built 1937 — Cars Now in Regular Service

Air Conditioned — Steam Jet Type

4 Wheel Cast Steel Roller Bearing Trucks

Seating Capacity — 48.

Reply to Box 661, RAILWAY AGE,
30 Church St., New York 7, N. Y.

RAILROAD EQUIPMENT
CARS—LOCOMOTIVES
REPAIR PARTS

RELAYING RAILS

STEEL STORAGE TANKS
6000—8000—10000 gal. cap.
CLEANED AND TESTED

THE PURDY COMPANY
8754 S. Dobson Avenue **Chicago 19, Illinois**

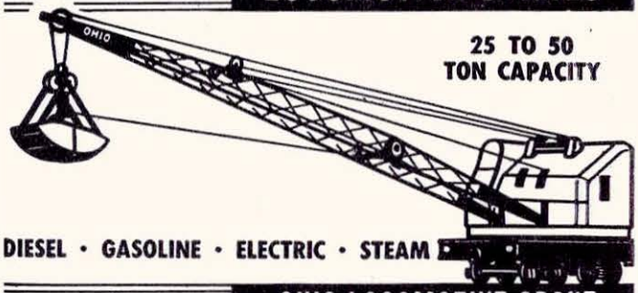
"Bound" to arrive right!

New Union Pacific box cars are being equipped with flush anchor plates in car walls to which lading may be securely bound. Another progressive service provided for shippers by Union Pacific.

UNION PACIFIC RAILROAD

Be Specific **SHIP UNION PACIFIC**

OHIO
LOCOMOTIVE CRANES



25 TO 50 TON CAPACITY

DIESEL • GASOLINE • ELECTRIC • STEAM

THE OHIO LOCOMOTIVE CRANE CO.
BUCYRUS, OHIO

HYMAN-MICHAELS COMPANY

Relaying Rails ★★★ **Dismantling**

Used railroad equipment—cars—locomotives
Freight Car Replacement Parts
Complete stocks of guaranteed used freight car parts carried on hand by us at all times. Located conveniently for shipment to any part of the country. Write—Phone—Car or Track Dismantling, or Car Parts.

Main Office
122 SOUTH MICHIGAN AVENUE
CHICAGO, ILLINOIS

Branches
Wire—when interested in used Rails, Equipment, Cars,

St. Louis	Los Angeles	Havana, Cuba
New York	San Francisco	Houston
SERVICE	QUALITY	RELIABILITY

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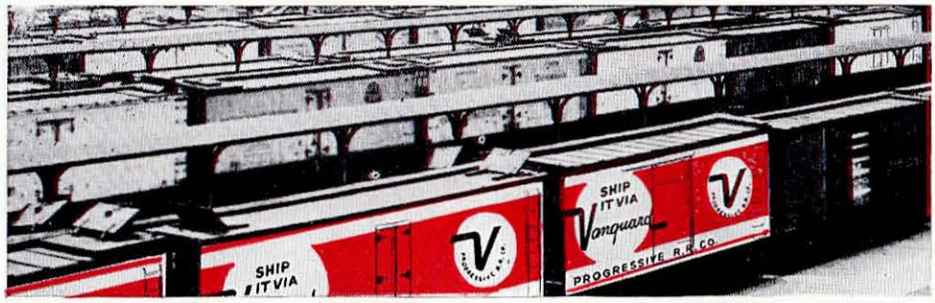
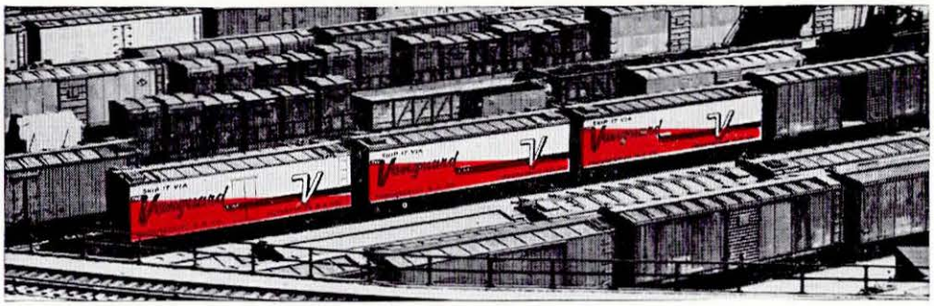
The House of Stainless
STEEL
AT YOUR SERVICE
STEEL
CHICAGO STEEL SERVICE COMPANY
Kildare Ave. at 45th St. Chicago 32, Ill. Telephone LAfayette 3-7210
COMPLETE SERVICE IN STAINLESS and CARBON STEELS



PICK A YARD . . .



ANY YARD . . .

Do your cars **STAND OUT** like these?

It's a fact that *whatever your freight cars may be*—rolling or resting—they can attract the immediate attention of millions of people, many of whom are prospective shippers. They can reflect—by a smart, well-groomed appearance—forward-looking management.

Are you taking advantage of the potential selling power your freight cars have?

Today more and more alert railroad men are giving their freight equipment that "stand out" look with Du Pont DULUX Railroad Finishes. They find DULUX gives lasting service . . . keeps its high original gloss and color through months of weathering, smoke, hard knocks and cinder blast. These DULUX qualities cut long-run maintenance costs.

DULUX comes in a wide range of line-identifying colors. So make sure your rolling stock catches the public eye. Use Du Pont DULUX Railroad Finishes. E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington 98, Del.

85% **of America's leading railways* use DUCO lacquer or DULUX enamel on passenger-train equipment.**

. . . conclusive proof that the nation's railroads depend on the exceptional qualities of Du Pont DUCO and DULUX Railroad Finishes: outstanding durability and sparkling beauty with a minimum of maintenance.

*Includes Class 1 lines operating 100 or more passenger-train cars.

Chemically engineered to do the job *better*

DU PONT
REG. U.S. PAT. OFF.

DUCO·· DULUX
REG. U. S. PAT. OFF. REG. U. S. PAT. OFF.

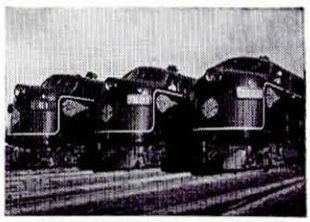
150th Anniversary

Railroad Finishes

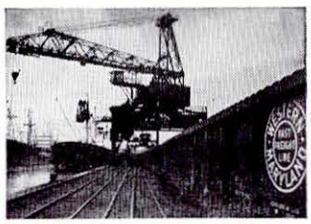
BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Finish Facts from DU PONT

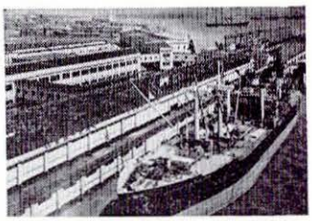
Western Maryland—now celebrating century of service—continues to rely on Du Pont finishes



THREE OF A KIND. These spanking-new electromotive diesels, operated by Western Maryland in West Virginia, Maryland and Pennsylvania, are all finished with Du Pont DUCO. Railroad men everywhere see how Du Pont finishes bond securely to metal surfaces and hold up under the blast action of road beds . . . sparkle again after repeated scrubbings.



66,600 POUNDS A MINUTE. This huge crane, one of three operated by Western Maryland at Port Covington, Maryland, is capable of loading 66,600 pounds a minute. To take the hard knocks that result from this fast, heavy work, the Du Pont finishes on coal cars and crane installations are formulated to give maximum adhesion and flexibility.



BRISTLING ACTIVITY on Western Maryland's vast merchandise piers in the Port of Baltimore. To protect its huge investment in buildings and equipment at this great Tidewater Terminal—Western Maryland uses Du Pont finishes throughout for long-lasting service and smart looks.

CONSOLIDATION

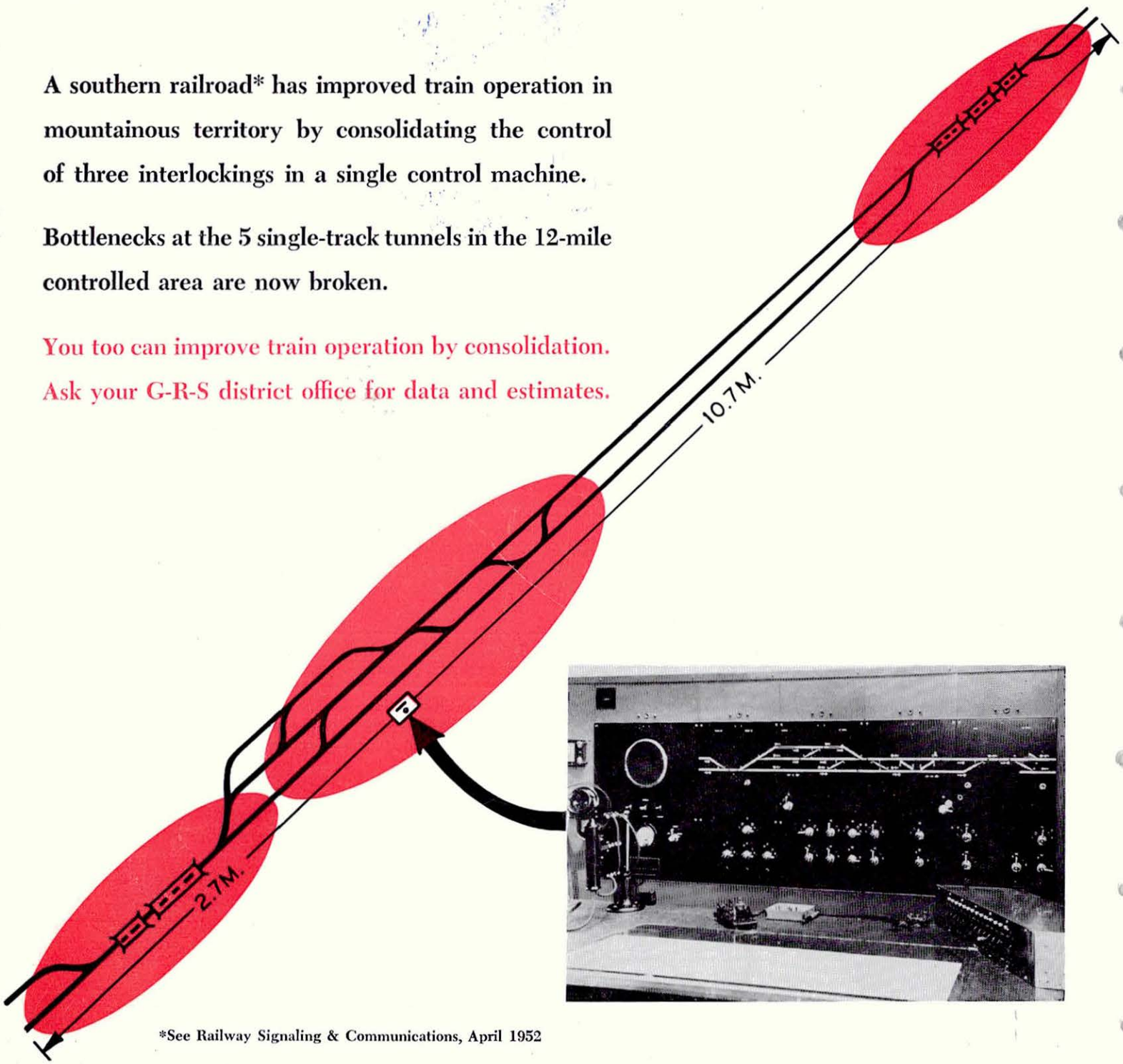
WITH G·R·S ALL-RELAY INTERLOCKING

speeds traffic through tunnel area

A southern railroad* has improved train operation in mountainous territory by consolidating the control of three interlockings in a single control machine.

Bottlenecks at the 5 single-track tunnels in the 12-mile controlled area are now broken.

You too can improve train operation by consolidation. Ask your G-R-S district office for data and estimates.



*See Railway Signaling & Communications, April 1952

GRS

GENERAL RAILWAY SIGNAL COMPANY

230 Park Av. NEW YORK 17 | 122 S. Mich. Av. CHICAGO 3 | Main Office ROCHESTER 2, N. Y. | 611 Olive St. ST. LOUIS 1

A-2610

GRS